FDP CORP.
2140 South Dixie Highway
Miami, FL 33133
Phone: (305) 858-8200
Fax: (305) 854-6305

Chairman, President, & CEO:	Michael C. Goldberg
Status:	Public Corporation
Stock Exchange:	NASDAQ
Total Employees:	208
Total Revenue:	$17,794,839
Fiscal Year End:	11/30/92

Key Points

- FDP's main strategy is to offer a total solution for the marketing and administration needs of life insurance companies.
- FDP, in conjunction with several major life insurance companies, is designing an entirely new applications environment--FDP/VISION. This Windows-based solution will tie together all of FDP's products and will use UNIX and Windows NT as servers in a client/server architecture. The result will be economies of scale and increased sales.
- International sales rose 60% to $3.2 million during fiscal 1992 and continue to represent an increasing percentage of total revenue. FDP has contracted with a major financial institution based in the U.K. for the development and first installation of FDP/COMPASS (Comprehensive Pension Administrative Support System). FDP/COMPASS is the client/server version of its FDP/PARIS Group Pension Administration System.
- Due to a strong demand in Europe for open systems architecture, FDP has also developed a UNIX-based version of FDP/CLAS (Comprehensive Life Administration System).

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Company Description

FDP, founded in 1968, provides applications software products, processing, and associated support services to life insurance companies, life insurance agents, and employee benefit consultants.

- FDP has three product groups: Home Office products, Pension Partner systems, and Agency Partner systems.
- FDP also is an authorized Value-Added Reseller for Hewlett-Packard and an Authorized Applications Specialist in the IBM Business Partner Program.

Financials

Fiscal 1992 reached $17.8 million, a 9% increase over fiscal 1991 revenue of $16.3 million. Net income was $616,000, compared to a net loss of $275,000 for fiscal 1991. A five-year financial summary follows:

FDP CORP.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	11/92	11/91	11/90	11/89	11/88
Revenue	$17,795	$16,314	$16,763	$14,651	$14,012
· Percent change from previous year	9%	(3%)	14%	5%	(1%)
Income (loss) before taxes	$929	$(443)	$759	$(161)	$786
· Percent change from previous year	310%	(158%)	571%	(120%)	102%
· Gross margin	5%	--	5%	--	6%
Net income (loss)	$616	$(275)	$472	$(100)	$831
· Percent change from previous year	324%	(158%)	572%	(112%)	191%
· Net margin	3%	--	3%	--	6%
Earnings (loss) per share	$0.18	$(0.08)	$0.14	$(0.03)	$0.23
· Percent change from previous year	329%	(43%)	567%	(113%)	188%

Approximately 76% of FDP's fiscal 1992 revenue was derived from applications software products and associated support services, 20% from processing and related services, and 4% from hardware sales and commissions. A three-year summary of source of revenue follows:

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FDP CORP.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ thousands)

	FISCAL YEAR					
	11/92		11/91		11/90	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Software and services						
Products						
· Home offices (a)	$5,385	30%	$4,463	27%	$4,470	27%
· Micro/mini products (b)	5,014	28%	4,591	28%	4,330	26%
	$10,399	58%	$9,054	55%	$8,800	53%
Consulting, conversions, and customizations	2,883	16%	1,900	12%	1,640	10%
Other	174	1%	316	2%	91	--
Total Software	$13,456	76%	$11,270	69%	$10,530	63%
Processing and other services						
Usage fees						
· Pension Partner	$1,466	8%	$1,786	10%	$2,164	13%
· Agency Partner	551	3%	596	4%	843	5%
· FDP/CLAS	846	5%	592	4%	252	1%
	$2,863	16%	$2,974	18%	$3,259	19%
Customization and consulting	219	1%	159	1%	226	1%
Other	475	3%	436	3%	508	3%
Total Processing	$3,557	20%	$3,569	22%	$3,993	24%
Equipment sales and commissions	$782	4%	$1,475	9%	$2,239	13%
TOTAL	**$17,795**	**100%**	**$16,314**	**100%**	**$16,762**	**100%**

(a) Includes FDP/PARIS, FDP COMPASS, and FDP/CLAS systems.

(b) Includes Pension Partner and Agency Partner systems.

Fiscal 1992 results were attributed to the following:

- Software revenues increased 19% over the prior year. Home office system sales increased 21% due primarily to a 44% increase in revenue from FDP/CLAS. Micro/minicomputer product sales

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increased 9% due primarily to the continued growth of the Pension Partner product.

- Information services revenue, consisting primarily of timesharing charges, remained basically unchanged in 1992. Agency Partner and Pension Partner processing services continue to decline as their software products are now more frequently requested for standalone PCs instead of on a timesharing basis.

Key Products and Services

FDP develops, markets, and supports applications software products for mainframe, minicomputer, and microcomputers which also may be accessed via processing services. FDP's current products and services are organized into the following product groups:

- Pension Partner
- Agency Partner
- Home Office Products (FDP/PARIS, FDP/COMPASS, and FDP/CLAS)

Pension Partner:

The Pension Partner System is designed to compute and illustrate interactively various pension and employee benefit plans based on assumed financial and tax parameters governed by federal tax regulation, economic conditions, actuarial concepts, and certain standard business factors in the industry.

- This proposal and administration system is used by life insurance companies and agents and employee benefit consultants and is available for IBM and compatible PCs and LANs, HP minicomputers, and via processing.

- The system is used by over 1,000 life insurance companies and agents, as well as by consultants and other users.

Supplemental pension office automation products that can either complement Pension Partner or be used as separate standalone systems include:

- Easy Laser, PC-based software that automates the completion of laser-printed IRS 5500 and 5300 forms and related schedules

- Easy Forms, PC software that automates the preparation of 1099Rs and related forms

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- Pension Manager, for the control and coordination of pension office workflow
- FDP/PTA, a pension trust accounting data base and asset reconciliation system
- FDP/Minimum Distribution, illustrates the amount of excise taxes payable on excess distributions and excess accumulations. Available via minicomputer, PC, and processing service.
- PDQ/PRO and PDQ/VIP, IRS-approved automated pension document generation systems for Master or Regional Prototype plans and Volume Submitter Individualized Plans
- FDP/125, enrollment and administration software for Section 125 cafeteria plans

During 1991, FDP formed an agreement with The Prudential to develop the PENCEPTS proposal system, a simplified proposal process using pre-set marketing strategies with customized options.

Agency Partner:

Agency Partner software products are used by life insurance agents to manage their business. The products are available for IBM and compatible PCs and include the following:

- FINPACK*B financial planning software automates definition and analysis of a client's personal financial profile and produces professional reports.
- FDP/XL2 is an illustration system that generates proposals ranging from simple ledgers to comprehensive deferred compensation plans.
- EC Admin administers non-qualified deferred compensation plans, permits periodic review of existing benefits, and allows for increasing insurance coverage as needs change.
- Agency Database is a combination of marketing and office automation tools to automate client/prospect tracking, in-force policy servicing, commission accounting, investment tracking, report generating, and letter writing.

CONCEPTS is a customized version of FDP/XL2 for The Prudential.

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Home Office Products:

FDP/CLAS (Comprehensive Life Administration System) issues universal life, variable life, traditional life, and annuity policies; bills premiums; calculates agents' commissions; accounts for all monies paid in, withdrawn, or borrowed; and produces annual statements for both the insurance company and policyholder. FDP/CLAS is available on HP and UNIX computers and on a timesharing basis.

The FDP/PARIS (Pension Accounting Recordkeeping and Investment System) is a group pension contract administration, case accounting, and plan administration system for defined contribution plans. The system operates in an IBM mainframe environment and is also available in a client/server environment where it is known as FDP/COMPASS (Comprehensive Pension Administrative Support System).

- FDP/PARIS has been installed at the New York Life Insurance Company, Mutual Life Insurance Company of New York (MONY), Home Life Insurance Company, John Hancock Life Insurance, the American International Group, American United Life Insurance Company, and Safeco Life Insurance Company.

- FDP/COMPASS has been installed at Britannia Life Limited (Glasgow, Scotland).

Industry Markets

FDP's clients include numerous life insurance agents, more than 125 insurance companies, larger consulting firms specializing in pension and employee benefits, several accounting firms, and several hundred smaller consulting firms specializing in employee benefit plans.

Clients

Major customers include The Prudential, The Prudential of America Life (Canada), Metropolitan Life, Equitable Life, New York Life, John Hancock Mutual Life, Massachusetts Mutual, American International Group, New England Mutual, Mutual Life Insurance Company of New York (MONY), Connecticut Mutual, Continental Assurance (CNA), Phoenix Mutual, General American Life, Guardian Life, National Life of Vermont, Minnesota Mutual, Provident Life and Accident, Home Life, American United Life, Life of Virginia, Union Central, Equitable Life of Iowa, Fidelity Union Life, U.S. Life, Indianapolis Life, Great-West Life, Crown Life, Manulife (Canada), Safeco Life, American Life, ITT/Hartford Life, Johnson Higgins/Kirke-Van Orsdel, Inc., Wesleyan Assurance Society, Windsor Group Limited, and Britannia Life Limited.

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Geographic Markets

Approximately 82% of FDP's fiscal 1992 revenue was derived from the U.S. and 18% from revenue, including software sales to U.S. home offices for installation at foreign subsidiaries.

A three-year geographic source of revenue summary follows:

FDP CORP.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	11/92		11/91		11/90	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$14.6	82%	$14.3	88%	$15.1	90%
Foreign	3.2	18%	2.0	12%	1.7	10%
TOTAL	**$17.8**	**100%**	**$16.3**	**100%**	**$16.8**	**100%**

In addition to its headquarters in Miami, the company has a branch office in Wellesley Hills (MA).

Computer Hardware and Software

FDP has Hewlett-Packard 3000 computers installed at its data center in Miami in support of its processing services and in-house software development.

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FDP CORP.
2140 South Dixie Highway
Miami, FL 33133
(305) 858-8200

Michael C. Goldberg, Chairman, President, and CEO
Public Corporation, NASDAQ
Total Employees: 192
Total Revenue, Fiscal Year End 11/30/91: $16,314,267

The Company

FDP, founded in 1968, provides applications software products, processing, and associated support services to life insurance companies, life insurance agents, and employee benefit consultants. The company is also an authorized Value-Added Reseller for Hewlett-Packard and an Authorized Applications Specialist in the IBM Business Partner Program.

Fiscal 1991 revenue was $16.3 million, a 3% decrease from fiscal 1990 revenue of $16.8 million. Net losses were $275,000, compared to net income of $472,000 for fiscal 1990.

- Software revenue increases of 7% during fiscal 1991 were offset by an 11% decrease in processing revenue and a 34% decrease in equipment sales.
- FDP/CLAS life insurance policy administration system revenues rose 79% to $3.4 million during fiscal 1991. Agency Partner software sales and related maintenance services rose by 24% during the year.
- Net losses were attributed to cost of sales increasing at a faster pace than increases in revenues. Selling, general, and administrative expenses rose $376,000, or 12% due to additional costs for personnel and research and development.
- A five-year financial summary follows:

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FDP CORP.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	11/91	11/90	11/89	11/88	11/87
Revenue	$16,314	$16,763	$14,651	$14,012	$14,213
· Percent increase (decrease) from previous year	(3%)	14%	5%	(1%)	6%
Income (loss) before taxes	$(443)	$759	$(161)	$786	$389
· Percent increase (decrease) from previous year	(158%)	571%	(120%)	102%	(19%)
· Gross margin	--	5%	--	6%	3%
Net income (loss)	$(275)	$472	$(100)	$831	$286
· Percent increase (decrease) from previous year	(158%)	572%	(112%)	191%	(7%)
· Net margin	--	3%	--	6%	2%
Earnings (loss) per share	$(0.08)	$0.14	$(0.03)	$0.23	$0.08
· Percent increase (decrease) from previous year	(43%)	567%	(113%)	188%	--

Revenue for the three months ending February 29, 1992 reached $4.4 million, an 18% increase over $3.7 million for the same period in 1991. Net earnings for the quarter were $292,500, compared to a net loss of $232,400 for the same period a year ago. Results were positively affected by a 31% increase in software and related items, partially offset by a 3% decline in processing related services.

Key Products and Services

Approximately 69% of FDP's fiscal 1991 revenue was derived from applications software products and associated support services, 22% from processing and related services, and 9% from hardware sales and commissions. A three-year summary of source of revenue follows:

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FDP CORP.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ thousands)

	FISCAL YEAR					
	11/91		11/90		11/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Software and services						
Products						
· Home offices (a)	$4,463	27%	$4,470	27%	$3,842	26%
· Micro/mini products (b)	4,591	28%	4,330	26%	2,929	20%
	$9,054	55%	$8,800	53%	$6,771	46%
Consulting, conversions, and customizations	1,900	12%	1,640	10%	1,297	9%
Other	316	2%	91	--	51	--
Total Software	$11,270	69%	$10,531	63%	$8,119	55%
Processing and services						
Usage fees						
· Pension Partner	$1,786	10%	$2,164	13%	$2,430	17%
· Agency Partner	596	4%	843	5%	1,162	8%
· FDP/CLAS	592	4%	252	1%	215	1%
	$2,974	18%	$3,259	19%	$3,807	26%
Customization and consulting	159	1%	226	1%	227	2%
Other	436	3%	508	3%	513	3%
Total Processing	$3,569	22%	$3,993	24%	$4,547	31%
Equipment sales and commissions	$1,475	9%	$2,239	13%	$1,985	14%
TOTAL	**$16,314**	**100%**	**$16,763**	**100%**	**$14,651**	**100%**

(a) Includes FDP/MAAS, FDP/PARIS, and FDP/CLAS systems.

(b) Includes Pension Partner and Agency Partner systems.

FDP develops, markets, and supports applications software products for mainframes, minicomputers, and microcomputers that also may be accessed via processing services. FDP's current products and services are organized into the following product groups:

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- Pension Partner
- Agency Partner
- Home Office Products (FDP/MAAS and FDP/CLAS)

Pension Partner:

The Pension Partner System is designed to compute and illustrate interactively various pension and employee benefit plans based on assumed financial and tax parameters governed by federal tax regulation, economic conditions, actuarial concepts, and certain standard business factors in the industry.

- This proposal and administration system is used by life insurance companies and agents and employee benefit consultants and is available for IBM and compatible PCs and LANs, HP minicomputers, and via processing.

- The system is used by approximately 900 life insurance companies and agents, as well as by consultants and other users.

Supplemental pension office automation products that can either complement Pension Partner or be used as separate standalone systems include:

- Easy Laser, PC-based software that automates the completion of laser-printed IRS 5500 and 5300 forms and related schedules

- Easy Forms, PC software that automates the preparation of 1099Rs and related forms

- Pension Manager, for the control and coordination of pension office workflow

- FDP/PTA, a pension trust accounting data base and asset reconciliation system

- FDP/Minimum Distribution, illustrates the amount of excise taxes payable on excess distributions and excess accumulations. Available via minicomputer, PC, and processing service.

- PDQ/PRO and PDQ/VIP, IRS-approved automated pension document generation systems for Master or Regional Prototype plans and Volume Submitter Individualized Plans

- FDP/125, enrollment and administration software for Section 125 cafeteria plans

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During 1991, FDP formed an agreement with The Prudential to develop the PENCEPTS proposal system, a simplified proposal process using pre-set marketing strategies with customized options.

Agency Partner:

Agency Partner software products are used by life insurance agents to manage their business. The products are available for IBM and compatible PCs and include the following:

- FINPACK*B financial planning software automates definition and analysis of a client's personal financial profile and produces professional reports.

- FDP/XL2 is proposal illustration system that generates proposals ranging from simple ledgers to comprehensive deferred compensation plans. CONCEPTS is a customized version of FDP/XL2 for The Prudential.

- EC Admin administers non-qualified deferred compensation plans, permits periodic review of existing benefits, and allows for increasing insurance coverage as needs change.

- Agency Database is a combination of marketing and office automation tools to automate client/prospect tracking, enforce policy servicing, commission accounting, investment tracking, report generating, and letter writing.

Home Office Products:

The FDP Comprehensive Life Administration System (FDP/CLAS) issues universal life, variable life, traditional life, and annuity policies; bills premiums; calculates agents' commissions; accounts for all monies paid in, withdrawn, or borrowed; and produces annual statements for both the insurance company and the policyholder. FDP/CLAS is available on HP and IBM computers and on a timesharing basis.

The FDP Multiple Account Allocation System (FDP/MAAS) is a group pension contract administration, case accounting, and plan administration system for defined contribution plans. The system is available for HP 3000 systems and IBM 3090 computers (as FDP/PARIS).

- FDP/MAAS has been installed at the New York Life Insurance Company, Mutual Life Insurance Company of New York (MONY), Home Life Insurance Company, John Hancock Life

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Insurance, the American International Group, and American United Life Insurance Company.

- FDP/PARIS has been installed at Mutual Life Insurance Company of New York (MONY) and SAFECO Life Insurance Companies.

During the first quarter of fiscal 1992, FDP entered into a joint venture with a European client to develop a single system derived from FDP/MAAS and FDP/PARIS, taking advantage of the latest standards for open systems and cooperative processing architectures.

Industry Markets

FDP's clients include numerous life insurance agents, more than 125 insurance companies, larger consulting firms specializing in pension and employee benefits, several accounting firms, and several hundred smaller consulting firms specializing in employee benefit plans.

Major customers include The Prudential, The Prudential of America Life (Canada), Metropolitan Life, Equitable Life, New York Life, John Hancock Mutual Life, Massachusetts Mutual, American International Group, New England Mutual, Mutual Life Insurance Company of of New York (MONY), Connecticut Mutual, Continental Assurance (CNA), Phoenix Mutual, General American Life, Guardian Life, National Life of Vermont, Minnesota Mutual, Provident Life and Accident, Home Life, American United Life, Life of Virginia, Union Central, Equitable Life of Iowa, Fidelity Union Life, U.S. Life, Indianapolis Life, Great-West Life, Crown Life, Manulife (Canada), Safeco Life, American Life, ITT/Hartford Life, Johnson Higgins/Kirke-Van Orsdel, Inc., and Wesleyan Assurance Society.

Geographic Markets

Approximately 88% ($14.3 million) of FDP's fiscal 1991 revenue was derived from the U.S. The remaining 12% ($2 million) was derived from foreign revenue, including software sales to U.S. home offices for installation at foreign subsidiaries.

In addition to its headquarters in Miami, the company has a branch office in Wellesley Hills (MA).

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Computer Hardware and Software

FDP has Hewlett-Packard 3000 computers installed at its data center in Miami in support of its processing services and in-house software development.

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FDP CORP.
2140 South Dixie Highway
Miami, FL 33133
(305) 858-8200

Michael C. Goldberg, President and CEO
Public Corporation, NASDAQ
Total Employees: 174
Total Revenue, Fiscal Year End
11/30/89: $14,651,497

The Company

FDP, founded in 1968, provides application software products, processing, and associated support services to life insurance companies, life insurance agents, and employee benefit consultants. The company is also an authorized Value-Added Reseller for Hewlett-Packard.

Total fiscal 1989 revenue reached $14.7 million, a 5% increase over fiscal 1988 revenue of $14.0 million. Net losses for fiscal 1989 were $100,000, compared to net income of $831,000 for fiscal 1988.

- During fiscal 1989, FDP continued the transition from predominant reliance on processing revenue to developing and selling application software products.
- Although software-related revenue increased by $652,000 during the year, processing revenue declined by nearly $700,000.
- Since software and hardware sales are now nearly 70% of total revenue and expected to increase in the future, fiscal 1989 is likely to be the last year in which processing revenue declines will have a significant effect on profitability.
- Declines in income were attributed to increased costs, particularly investments in new products, at a greater rate than related revenues. Research and development expenditures were approximately $2.7 million (18% of revenue) in fiscal 1989, $1.5 million (11% of revenue) in fiscal 1988, and $1.6 million (11% of revenue) in fiscal 1987.
- A five-year financial summary follows:

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FDP CORP.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	11/89	11/88	11/87	11/86	11/85
Revenue	$14,651	$14,012	$14,213	$13,469	$16,039
• Percent increase (decrease) from previous year	5%	(1%)	6%	(16%)	1%
Income (loss) before taxes	$(161)	$786	$389	$482	$2,561
• Percent increase (decrease) from previous year	(120%)	102%	(19%)	(81%)	(36%)
• Gross margin	--	6%	3%	4%	16%
Net income (loss)	$(100)	$831 (a)	$286	$309	$1,356
• Percent increase (decrease) from previous year	(112%)	191%	(7%)	(77%)	(47%)
• Net margin	--	6%	2%	2%	8%
Earnings (loss) per share	$(0.03)	$0.23 (a)	$0.08	$0.08	$0.32
• Percent increase (decrease) from previous year	(113%)	188%	--	(75%)	(48%)

(a) Includes a one-time tax credit of $324,191, or $0.09 per share, from a change in accounting for income taxes.

Key Products and Services

Approximately 55% of FDP's fiscal 1989 revenue was derived from application software products and associated support services, 31% from processing and related services, and 14% from hardware sales and commissions. A three-year summary of source of revenue follows:

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FDP CORP.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ thousands)

	FISCAL YEAR					
	11/89		11/88		11/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Software and services						
Products						
• Home offices (a)	$3,842	26%	$2,580	18%	$2,371	17%
• Micro/mini products (b)	2,929	20%	2,942	21%	2,029	14%
	$6,771	46%	$5,522	39%	$4,400	31%
Conversions	1,003	7%	1,484	10%	991	7%
Customization	217	1%	248	2%	202	1%
Consulting	77	1%	130	1%	134	1%
Other	51	--	83	1%	64	--
Total Software	$8,119	55%	$7,467	53%	$5,791	41%*
Processing and services						
Usage fees						
• Pension systems	$2,430	17%	$2,760	20%	$2,977	21%
• Advanced underwriting systems	1,162	8%	1,548	11%	2,140	15%
• FDP/CLAS	215	1%	178	1%	120	1%
	$3,807	26%	$4,486	32%	$5,237	37%
Customization	123	1%	187	1%	81	1%
Consulting	104	1%	88	1%	51	--
Other	513	3%	485	3%	447	3%
Total Processing	$4,547	31%	$5,246	37%	$5,816	41%
Equipment sales and commissions	$1,985	14%	$1,299	9%	$2,606	18%
TOTAL	**$14,651**	**100%**	**$14,012**	**100%**	**$14,213**	**100%***

* *Differences are due to rounding.*

(a) Includes FDP/MAAS, Group Pension, and FDP/CLAS systems.

(b) Includes Individual Pension, Advanced Underwriting, and Agency Data Base systems.

(c) Includes the sale of Hewlett-Packard 3000 systems to purchasers of the FDP/MAAS, Pension, and FDP/CLAS systems.

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FDP offers products and services in the following categories:

- Pension and Employee Benefits
- Advanced Underwriting
- Agency Data Base
- Insurance Company Home Office

Pension and Employee Benefits:

The Pension Partner system is designed to compute and illustrate interactively various pension and employee benefit plans based on assumed financial and tax parameters governed by federal tax regulation, economic conditions, actuarial concepts, and certain standard business factors in the industry.

- The system is licensed under timesharing arrangements which call for a one-time installation fee, ranging from $24,500 for insurance companies to $2,500 for an insurance agent.

- The system is available for license on HP 3000 systems for a base fee usually starting at $50,000, and a maintenance fee starting at $750 per month.

- A version of the system for smaller-sized pension consultants is also available on the IBM microcomputer. Pricing for the first copy is $25,000, with declining unit prices for additional copies. Monthly maintenance fees are $375.

- The system is used by approximately 900 life insurance companies and agents, as well as by consultants and other users. FDP has expanded the target market for Pension Partner to include certain CPA firms, banks, and law firms that now provide pension services.

Advanced Underwriting:

The FDP Advanced Underwriting System assists life insurance agents to select and sell policies from the array of available life insurance products.

- The data base for the system includes information about more than 9,000 different life insurance policies and plan codes offered by more than 100 life insurance companies.

- The system includes the following modules:

  - FDPXL is a policy illustration system including ledger

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statement, executive bonus, split dollar, and vanishing premium illustrations.

- FDP/APPS is an entry level micro-based product in the FDP Agency Partner series of products similar to FDPXL but with fewer sophisticated functions.

- COMPXL is a deferred compensation proposal system using the tax leverage of life insurance to fund an executive benefit program.

- FINPACK is an estate planning program including Business Valuation, Comprehensive Needs Analysis, Corporate Feasibility Illustrations, and Disability Proposals.

- The FDP Advanced Underwriting System is used by approximately 1,300 life insurance companies, agents, consultants, and other clients and is primarily licensed under a timesharing arrangement. The one-time installation fee ranges from $7,500 for insurance companies to $2,500 for an insurance agent.

- A version of the system for IBM and compatible microcomputers is also available. The price for the unlimited license of the software for a single insurance company ranges from $25,000 to over $100,000.

Agency Data Base:

The Agency Data Base system in an integrated life insurance agency administration and commission tracking system for IBM microcomputers. The system also provides a communications link to FDP's data center or a life insurance home office mainframe.

- Together with the FDP Advanced Underwriting microcomputer software, the systems are known as the FDP Agency Partner.

- The single microcomputer version is $995 for the first copy, with declining unit prices for additional copies.

- A network version is priced at $2,495.

- The monthly maintenance fee is equal to 1% to 2% of the purchase price for home office sales. There are currently over 8,000 copies in use in the market.

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Home Office Products:

The FDP Comprehensive Life Administration System (FDP/CLAS) issues universal life, variable life, traditional life, and annuity policies; bills premiums; calculates agents' commissions; accounts for all monies paid in, withdrawn, or borrowed; and produces annual statements for both the insurance company and policyholder.

- FDP/CLAS is available on a timesharing basis for a fee of $100,000. FDP also receives a monthly maintenance and leasing fee beginning at $5,000 plus $1 per policy per month (depending on volume) and normal timesharing rates ranging from $40 to $80 per hour.
- FDP/CLAS is also available for license as a standalone system on HP 3000 computers. The license fee is $250,000 and monthly maintenance starts at $5,000.
- The above fees vary according to the modules selected.

The FDP Multiple Account Allocation System (FDP/MAAS) is a group pension contract administration, case accounting, and plan administration system for defined contribution plans. The system is available for HP 3000 and IBM 3090 computers.

- The market for FDP/MAAS consists of the 100 largest U.S. life insurance companies, plus insurance companies (including those outside the U.S.) with aggressive growth planned in the managing of group annuity funds.
- An HP-based turnkey system typically ranges from $1.5 million to more than $3 million, including software, hardware, and installation costs.
- The licensing fee for the software varies with the modules selected and ranges from approximately $750,000 to $1.5 million.
- The maintenance fee ranges from $10,000 to $50,000 per month.

Industry Markets

FDP's clients include numerous life insurance agents, more than 125 insurance companies, larger consulting firms specializing in pension and employee benefits, several accounting firms, and several hundred smaller consulting firms specializing in employee benefit plans.

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During fiscal 1989, Mutual Life Insurance Company of New York and American United Life accounted for 12.8% and 11.3% of total revenue, respectively.

Other major customers include The Prudential, Metropolitan Life, Equitable Life, New York Life, John Hancock Mutual Life, Massachusetts Mutual, New England Mutual, Connecticut Mutual, Continental Assurance (CNA), Phoenix Mutual, General American Life, Guardian Life, National Life, Minnesota Mutual, Provident Life and Accident, Home Life, Life of Virginia, Union Central, Equitable Life of Iowa, Fidelity Union Life, U.S. Life, Indianapolis Life, Great-West Life, Crown Life, Manulife (Canada), and Twentieth Century Life.

Geographic Markets

Virtually all of FDP's fiscal 1989 revenue was derived from the U.S. The remainder was derived from Canada. During 1990, FDP made its first sale in Europe.

In addition to its headquarters in Miami, the company has a branch office in Wellesley Hills (MA).

Computer Hardware and Software

FDP has 10 Hewlett-Packard 3000 computers installed at its data center in Miami in support of its processing services and in-house software development.

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FACTORIAL SYSTEMS, INC.
6300 Bridgepoint Parkway
Suite 350
Austin, TX 78730
(512) 345-1192

Bill Balcezak, President
Private Company
Total Employees: 14 (12/90)
Total Revenue, Fiscal Year End
12/31/90: $1,500,000*

*INPUT estimate

The Company

Factorial Systems, Inc. is a privately held company which was founded in 1985 to provide manufacturing control systems solutions.

- Factorial began with a proven factory management and control system, acquired in 1985 from Tandem. From this base system, Factorial has developed a family of commercial application software products, collectively called the Paperless Factory^{R} System.

- During its first year of operation, Factorial made a significant investment to enhance and generalize the functionality of the original Tandem-developed system. As a result of this investment, Factorial management believes that the Paperless Factory^{R} System is a flexible system, installable in very diverse manufacturing environments, from job shop to repetitive and continuous-flow processing.

Factorial management feels the company's strengths include:

- The manufacturing expertise of its employees

- The consulting services it can provide to manufacturers in addition to its software products

- Its commitment to providing leading-edge solutions that focus on the competitive factors of manufacturing

- Its research and development partnerships in the academic environment

- Its experience in implementing factory management and control solutions

- Its manufacturing customers

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Key Products and Services

Approximately 70% of Factorial's revenue is derived from application software product licenses and associated customization and support services. The remaining 30% of revenue is derived from professional services.

The Paperless Factory® System is available for Tandem computers running under GUARDIAN and SQL. The Paperless Factory®/2 System, introduced in the third quarter of 1990, is available for IBM computers running under DAE OS/2.

- Modules currently available for Tandem (IBM) systems include the following:
  - PFS-TRACE (WorkFlow Manager/2) is a knowledge-based management and control system that provides on-line tracking, routing control, data collection, resource management and status, quality control, configuration management, parent/component traceability, process or pick and pack history, and interfaces to other systems and equipment.
  - PFS-PACE (Material Services/2) is a material control system used with PFS-TRACE (WorkFlow Manager/2) that provides just-in-time material replenishment and progressive relief, as well as the traditional inventory management functions of material movement control, inventory accounting, cycle counting, and stores location control.
  - PFS-TIME (Labor Services/2) is a time and attendance and labor reporting system that operates on a standalone basis or with PFS-TRACE (WorkFlow Manager/2) and/or PFS-PACE (Material Services/2). The product is user configurable to site-specific cost accounting and payroll requirements and can be used by the manufacturing and services industries.
- Software licenses vary based on the hardware used and the number of nodes or workstations on the system. Prices range from $50,000 for a small system to approximately $300,000 for a large, multimodule Tandem system.

In addition to customization and support services that are directly related to the implementation of the Paperless Factory System, Factorial also provides the following professional services on a limited basis:

- Manufacturing systems studies

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- Factory management and control requirements analysis and functional specifications
- Operations management studies
- CIM implementation planning
- Investment analysis
- Manufacturing strategic planning

Industry Markets

One hundred percent of Factorial's revenue is derived from the manufacturing industry. Clients generally are Fortune 500 companies.

Geographic Markets

Approximately 80% of Factorial's revenue is derived from the U.S. and 20% from the U.K.

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FACTORIAL SYSTEMS, INC.
6300 Bridgepoint Parkway
Suite 200
Austin, TX 78730
(512) 345-1192

Bill Balcezak, President
Private Company
Total Employees: 14 (10/89)
Total Revenue, Fiscal Year End
12/31/88: $1,500,000*

*INPUT estimate

The Company

Factorial Systems, Inc. is a privately-held company which was founded in 1985 to provide manufacturing control systems solutions.

- Factorial began with a proven factory management and control system, acquired in 1985 from Tandem. From this base system, Factorial has developed a family of commercial application software products, collectively called the Paperless Factory® System.

- During its first year of operation, Factorial made a significant investment to enhance and generalize the functionality of the original Tandem-developed system. As a result of this investment, Factorial management believes that the Paperless Factory System is a flexible system, installable in very diverse manufacturing environments, varying from job shop through repetitive and continuous-flow processing.

Factorial management feels the company's strengths include:

- The manufacturing expertise of its employees

- The consulting services it can provide manufacturers in addition to its software products

- Its commitment to providing leading-edge solutions that focus on the competitive factors of manufacturing

- Its research and development partnerships in the academic environment

- Its experience in implementing factory management and control solutions

- Its manufacturing customers

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Key Products and Services

Approximately 70% of Factorial's revenue is derived from application software product licenses and associated customization and support services. The remaining 30% of revenue is derived from professional services.

The Paperless Factory System is available for Tandem computers running under GUARDIAN.

- Modules currently available include the following:
  - PFS-TRACE is a knowledge-based management and control system that provides on-line tracking, routing control, data collection, resource management and status, quality control, configuration management, parent/component traceability, process or pick and pack history, and interfaces to other systems and equipment.
  - PFS-PACE is a material control system used with PFS-TRACE that provides just-in-time material replenishment and progressive relief, as well as the traditional inventory management functions of material movement control, inventory accounting, cycle counting, and stores location control.
  - PFS-TIME is a time and attendance and labor reporting system that operates on a standalone basis or with PFS-TRACE and/or PFS-PACE. The product is user configurable to site-specific cost accounting and payroll requirements and can be used by the manufacturing and services industries.
  - PFS-ORDER is a customer order configuration system that operates as a standalone system or with PFS-TRACE and PFS-PACE to provide control and accountability for the configuration of specific customer and make-to-stock orders.
  - PFS-DOC is an on-line receiving and shipping subsystem used with PFS-TRACE and PFS-PACE that enables the distributed factory management and control system to support manufacturing operations on a 24-hour, seven-day-per-week basis.
- Software licenses vary based on the hardware used and the number of transactions processed. A starter system for a Tandem CLX, including PFS-TRACE, PFS-PACE, and PFS-TIME, would license for approximately $89,000, while software for the Tandem VLX would be priced at approximately $267,000.

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- There are currently 12 Paperless Factory System installations.

Factorial is currently developing the following additional modules for the Paperless Factory System:

- PFS-QUALITY, scheduled for release in the first quarter of 1990, is a quality management system that provides on-line CRT-based quality data collection, analysis, and information display.

- PFS-TOOL, scheduled for release in the second quarter of 1990, is a tool management system that monitors and controls equipment and tool usage, in and out of cribs, to ensure stocking of the optimal quantity of each tool and machine, and availability when needed.

- PFS-SCHEDULE, scheduled for availability the first quarter of 1990, is a short-term scheduling system that complements and supplements the material requirements planning and capacity planning functions of MRP II systems.

In addition to customization and support services which are directly related to the implementation of the Paperless Factory System, Factorial also provides the following professional services on a limited basis:

- Manufacturing systems studies
- Factory management and control requirements analysis and functional specifications
- Operations management studies
- CIM implementation planning
- Investment analysis
- Manufacturing strategic planning

Industry Markets

One hundred percent of Factorial's revenue is derived from the manufacturing industry. Clients generally are Fortune 500 companies.

Geographic Markets

Approximately 70% of Factorial's revenue is derived from the U.S., 10% from the U.K., 10% from Europe, and 10% from the Pacific Rim.

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COMPANY BRIEF

Primary Industry-Specific Market: Discrete Manufacturing

Factorial Systems, Inc.
3305 Northland Drive
Suite 305
Austin, TX 78731-4940
(512) 467-2423

CEO: Bill Balcezak, President
Private Company
Founded: January 1985

Employees: 24 (11/86)
Total Revenue (FYE 12/31/86): $1.5 million*

The Company: Factorial Systems provides application software products and associated support services for control and recordkeeping for the factory floor

Sources of Revenue:
- Application Software
- Professional Services

Key Products and Services:
- Application Software (Utilizes Tandem's full line of computers)
  - The Paperless Factory (factory automation software). Available modules include Fac-Trace which tracks goods on the factory floor; Fac-Order, a customer order tracking system; Fac-Pace for inventory control; and Fac-Doc for the receiving department.
- Professional Services
  - Consulting areas include interfacing existing or planned hardware, functional specifications, and needs analysis

Target Industries:
- Discrete manufacturing (100%)

Geographic Markets:
- U.S. (90%)
- Korea (10%)
- Distributes through direct sales force

*INPUT estimate

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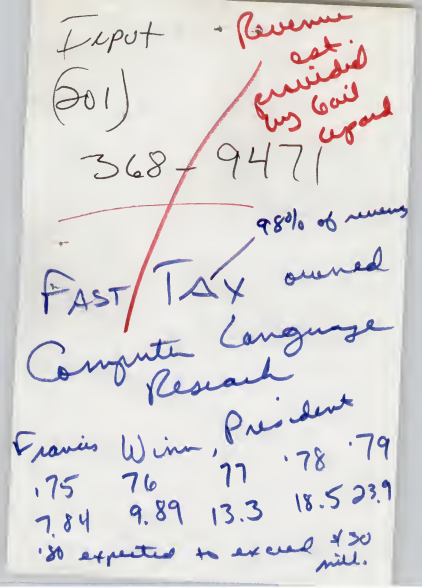

Input

(201)

368-9471

Revenue est. provided by Gail Cepard

98% of revenue

FAST TAX owned

Computer Language Research

Francis Winn, President

'75	76	77	'78	'79
7.84	9.89	13.3	18.5	23.9

'80 expected to exceed $30 mill.

COMPANY HIGHLIGHT

FAST-TAX
2395 Midway Road
Carrollton, TX 75006
(214) 934-7000

Francis Winn, Chairman
Private Corporation
Employees: 1,250 (Full-Time)
Total Revenues, Fiscal Year End 6/30/81: $45-50 million*

PRINCIPAL BUSINESS FAST-TAX has provided tax return processing services since it was founded in 1964.

SOURCE OF REVENUE

- 100% Processing services.

PRODUCTS AND SERVICES

- FAST-TAX provides a broad range of computerized tax return processing services including individual, corporate, partnership, fiduciary, expatriate and 5500 returns. In addition to standard processing, services available include:
  - Checkout returns, which provide a preliminary tax return for review and correction by the preparer prior to the printing of the final return.
  - Pro formas, partially filled-out input sheets using previous years' data, provided for first-year and subsequent-year returns on all FAST-TAX systems.
  - Tax planning, tax planning pro formas, tax scanning and tax underpayment alert letters.
- Services provided for 1040 individual returns include an Organizer, or source document, which is completed by the taxpayer and used for data entry.
- A Beneficiary Allocation Statement allocating all income, deductions and credits in a trust or estate to the total amounts distributed to all beneficiaries is available for 1041 fiduciary returns.
- For 1065 partnership returns, letters to partners identifying and explaining K-1 information are automatically generated.
- Trial Balance Input (TBI) service on 1120 corporate returns generates a corporate tax return directly from a firm's trial balance information.
  - Consolidated returns can be processed from data entered separately from various company divisions.

* INPUT estimate

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- The FAST-TAX Allocation and Apportionment service allows apportionment data for multi-state corporations to be entered on an overall company basis rather than separately for each state.

- In May 1981, FAST-TAX introduced the Marathon Timesharing System. The system offers on-line processing year-round with updated client data available for retrieval, review and revision on IBM 3270 display terminals and standard timesharing terminals. The IBM 3270 on-line access has been available since 1973. The following are services available on the system:

  - VIDEO-TAX provides on-line access to clients' files to determine the status of a return, scan clients' data or to perform tax planning and analysis. The tax preparer may enter new data, change existing data and calculate and preview taxes with a sample return.

  - VIDEO-PLAN allows the preparer to calculate and compare numerous 1040 tax return alternatives prior to printing the final return.

  - A scheduling and control system (SACS) acts as an on-line tax calendar or tickler file, permitting the user to monitor and log progress of tax and audit work.

- New features available for the 1981 tax season include:

  - ADR depreciation, automatic 65% and quantity limitations on depletion and automatic investment credit recapture.
  - Expanded pro forma input for all systems.
  - Automatic transfer of K-1 information to 1040 returns when 1065 or 1041 returns are processed.
  - Automatically generated 1040 NR return when partnership returns are processed.
  - Automatic computations for compliance with the Windfall Profit Tax on depletion.
  - An index for corporate and partnership returns listing all forms and schedules provided in the return.
  - FAST-TAX Computation 861, which computes the allocation and apportionment of deductions to foreign source income under U.S. Treasury Regulation 1.861-8.

INDUSTRY MARKETS FAST-TAX provides its services primarily to major CPA firms, law firms and Fortune 1000 corporations.

GEOGRAPHIC MARKETS

- FAST-TAX remote service center locations include Chicago, Dallas, Detroit, Houston, Los Angeles, New York, Washington, D.C., Philadelphia, Phoenix, Portland, St. Louis, Boston, Cleveland, Atlanta, Miami, Minneapolis, San Francisco, Denver and Charlotte, NC.

  - An international office is located in London, England.

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COMPUTER HARDWARE

- FAST-TAX maintains Amdahl 470 V/8 and Tandem equipment at its Carrollton, Texas, headquarters.
- Remote processing is offered via dial up, leased lines or Telenet.
- One of the largest users of Xerox 9700 laser printing technology, FAST-TAX offers customized printing of logos, transmittal letters and overnight turnaround on changes to tax returns.

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Acquired by Citicorp

COMPANY HIGHLIGHT

FINANCIAL DATA SYSTEMS, INC.
763 New Ballas Road South
St. Louis, MO 63141
(314) 567-1940

William W. Canfield, President
Private Corporation
Employees: 260
Total Revenues, Fiscal Year End 12/31/78: $10 million*

THE COMPANY

- Financial Data Systems (FDS) was founded in 1968 by William W. Canfield and William H. Corrington to market a package of on-line software programs for savings and mortgage loan accounting. Processing services for the thrift industry were added to FDS services in 1970 with the opening of the company's first data center in St. Louis. By 1972 on-line processing services had replaced software sales as the primary source of company revenues.

- FDS is currently one of the leading computer services vendors in the thrift industry, with a customer base composed entirely of savings and loan associations and mutual savings banks.

- INPUT estimates FDS's 1978 revenues were approximately $10 million. Management claims the company is profitable.

- Major competitors of FDS are NCR and local thrift services in its service areas.

- The company's 260 employees are segmented as follows:

Marketing	10
Administrative	50
Customer Support/Operations	200
	260

KEY PRODUCTS AND SERVICES

- Approximately 95% of FDS revenues are derived from on-line processing services and 5% from the sale of software products.

- FDS operates an on-line transaction processing service for 100 thrift institutions. Data centers are located in Chicago, St. Louis, Buffalo, Schenectady, and Boston. Communication forwarding stations are also maintained in Detroit and Baltimore.

* INPUT Estimate

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- The on-line service, called FDS On-Line Thrift, has been offered since 1970. Applications are all interactive and consist of the following:

  - Savings and Club Accounts.
  - Certificates of Deposit.
  - Mortgage Loan.
  - Construction Loan.
  - Home Improvement Loan.
  - Central File.
  - NOW Accounts.
  - Investor and Participation Loan.
  - General Ledger.
  - Line of Credit.
  - ATM Support.
  - Money Market Certificates.

- Customers generally sign five year contracts with FDS for use of the on-line service. Average customer expenditures are $9,000 per month. Client terminals are connected to FDS data centers by leased lines.

- Marketing efforts for on-line services are primarily directed towards thrift institutions having assets in excess of $100 million.

- The FDS On-Line Savings and Loan Thrift System is also sold separately as a total system for large savings and loan institutions. Introduced ten years ago, FDS has installed approximately 100 systems for in-house users.

  - Applications available are the same as those offered on their network service.
  - Price of the system is approximately $200,000 and will operate on any IBM 360/370/43XX with a minimum of 384K main memory.

- FDS also installs turnkey systems for clients if requested. Cost of the turnkey system, based on IBM hardware, generally runs about $400,000 for the equipment and the FDS software. Turnkey sales are a minor portion of their business and usually consist of three or four installations a year.

- New savings and loan applications planned by FDS are distributed data processing services, which will likely perform functions such as client-initiated report generation, loan-closing document preparation, and general ledger.

INDUSTRY MARKETS One hundred percent of FDS revenues are derived from thrift institutions, a subsector of the banking and finance industry.

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GEOGRAPHIC MARKETS The majority of FDS revenues are derived from banking institutions located in the Mid-West, New England and Middle Atlantic States.

COMPUTER HARDWARE AND SOFTWARE

- The hardware configuration and operating systems used at FDS data centers follow:
  - Chicago: IBM System/370 Model 155, EDOS.
  - St. Louis: Two IBM System/360s Model 65s, EDOS/VS.
  - Buffalo: IBM System/360 Model 65, EDOS.
  - Schenectady: IBM System/370 Model 155, EDOS.
  - Boston: IBM System/360 Model 65, EDOS.
- The two communications centers in Baltimore and Detroit have IBM remote site printing equipment. Approximately 25 cities are served by the FDS network.

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FINANCIAL DECISION SYSTEMS, INC. (FDSI)
30343 Canwood Street
Suite 210
Agoura Hills, CA 91301
Phone: (818) 706-2000
Fax: (818) 706-2350

President:	Warren Richard
Status:	Private Corporation
Total Employees:	50
Total Revenue:	$7,000,000
Fiscal Year End:	4/30/93

Key Points

- Over the last 12 months, FDSI has been broadening its product line and further enhancing its sales abilities. Specifically, FDSI has introduced:
  - A new version of its CORP A.D.S. fixed-asset manager
  - Its first Windows-based product, CORPCalendar tax-filing calendar
  - CORPInternational international tax package
  - CORPFact SFAS 109 compliance and planning system
- FDSI has also expanded its direct sales force and initiated telemarketing and telesales efforts.

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Company Description

Financial Decision Systems, Inc. (FDSI), founded in 1975 by Warren Richard, develops and markets PC-based corporate financial and tax management software packages and provides professional services involving the implementation and use of its own products.

FDSI has over 480 of its packages installed nationwide.

Strategy

FDSI's strategy is to continue to offer new and enhanced versions of its products, including Windows-based products, for its corporate customers.

The company has also expanded its direct sales efforts and has opened five additional branch offices during the past year.

Financials

FDSI's fiscal 1993 revenue was approximately $7 million, compared to $6.2 million for fiscal 1992.

Market Financials

Approximately 90% of FDSI's revenue is derived from PC-based tax compliance and associated applications software products and 10% from professional services.

FDSI's revenue is derived from across all industry sectors. The company has more than 300 of the Fortune 1000 companies as clients.

Geographic Markets

One hundred percent of the company's revenue is derived from the U.S.

Branch offices are located in Boston (MA), Chicago (IL), Dallas (TX), Detroit (MI), New York City (NY), Richmond (VA), and San Francisco (CA).

Employees

As of August 1, 1993, FDSI employed 50 persons, segmented as follows:

Marketing and sales	8
Customer support	25
Programmers/analysts	12
General and administrative	5
	50

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Alliances

FDSI does not have any alliances with other vendors.

Key Products and Services

FDSI's corporate financial and tax management software packages operate on DOS-compatible PCs.

Current products include the following:

- CORPTAX, a corporate tax information system that combines trial balance and columnar tax reporting, including tax compliance and planning features
- CORPCalendar, a tax filing calendar system
- CORPInternational, an international tax system
- State Planner, a multistate tax planning system
- CORPFact, a complete SFAS 109 compliance and planning system
- CORP A.D.S., a fixed-asset management system
- General Ledger Interface, an automated interface program that converts financial data into the CORPTAX data base

FDSI also provides customization and consulting services.

Marketing/ Sales

FDSI markets its products through direct sales and through a newly established telemarketing group based at its headquarters.

FDSI currently has eight sales and marketing employees and plans to add staff in this area during 1994.

Competitors

Primary competition for FDSI's tax management products comes from Price Waterhouse, Arthur Andersen, and Computer Language Research.

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FINANCIAL DECISION SYSTEMS, INC.
28035 Dorothy Drive
Agoura Hills, CA 91301
(818) 706-2000

Warren Richard, President
Private Corporation
Total Employees: 50
Total Revenue, Fiscal Year End
4/30/91: $7,000,000

The Company

Financial Decision Systems, Inc. (FDSI), founded in 1975 by Warren Richard, develops and markets corporate tax management software packages and provides professional services involving the implementation and use of its own products. The company no longer provides tax processing services.

FDSI's fiscal 1991 revenue reached approximately $7 million. FDSI's revenue has increased each year since fiscal 1988.

As of April 30, 1991, FDSI employed 50 persons, segmented as follows:

Marketing and sales	8
Customer support	25
Programmers/analysts	12
General and administrative	5
	50

Primary competition for FDSI's tax management products comes from Computer Language Research, Inc., Arthur Andersen, and Price Waterhouse.

Key Products and Services

Approximately 90% of FDSI's revenue is derived from microcomputer-based tax compliance and associated software products and 10% from professional services.

FDSI's Corptax family of corporate tax compliance products operate on DOS-compatible microcomputers. Current products include:

- OPUS, a corporate income tax return system that combines trial balance and columnar tax reporting, including tax compliance and planning features
- Tax Calendar, a tax report tracking system

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- State Tax Planner, a multistate tax planning system
- FASB 96, a complete FASB 96 compliance and planning system
- Asset Manager, a fixed asset depreciation system
- General Ledger Interface, an automated interface program which converts financial data into the Corptax data base

FDSI no longer actively markets the Corptax Mainframe corporate tax planning and compliance system.

The company also provides customization services using any Corptax product.

Industry Markets

FDSI's revenue is derived from across all industry sectors. The company has more than 300 of the Fortune 1000 companies as clients.

Geographic Markets

One hundred percent of the company's revenue is derived from the U.S.

Branch offices are located in New York City (NY) and Chicago (IL).

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FINANCIAL DECISION SYSTEMS, INC.
28035 Dorothy Drive
Agoura Hills, CA 91301
(818) 706-2000

Warren Richard, President
Private Corporation
Total Employees: 55
Total Revenue, Fiscal Year End 4/30/89: $5,000,000

The Company

Financial Decision Systems, Inc. (FDSI), founded in 1975 by Warren Richard, develops and markets corporate tax management software packages and provides associated tax processing services. FDSI also provides professional services involving the implementation and use of its own products.

FDSI's fiscal 1989 revenue reached approximately $5 million. FDSI's revenue has not changed substantially since fiscal 1987.

As of April 30, 1989, FDSI employed 55 persons, segmented as follows:

Marketing and sales	9
Customer support	26
Programmers/analysts	15
General and administrative	5
	55

Primary competition for FDSI's tax management products comes from Computer Language Research, Inc., Arthur Andersen, and Price Waterhouse.

Key Products and Services

Approximately 87% of FDSI's fiscal 1989 revenue was derived from software products, 11% from remote computing services, and the remaining 2% from professional services.

- Of its software revenues, 75% was generated from its Corptax microcomputer-based application packages, and 25% from Corptax Mainframe.

FDSI's Corptax family of products operate on IBM PC, XT, AT, and compatible microcomputers under PC-DOS 3.1. The products include:

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- Micro Corptax, a corporate income tax return system.
- Corptax Calendar, a tax report tracking system.
- Corptax Linx Plus, a trial balance and columnar corporate income tax and reporting system, includes tax compliance and planning features.
- Corptax State Planner, a microcomputer-based multi-state tax planning system.
- Corptax FASB 96, a complete FASB 96 compliance and planning system.
- Corptax Asset Manager, a fixed asset depreciation system.
- Corptax General Ledger Interface, an automated interface program which converts financial data into the Corptax data base.

Corptax Mainframe is a corporate tax planning and compliance system that offers an interface program allowing conversion of information directly from a General Ledger tape to user-defined Book 1120 format.

- The system can be integrated with Micro Corptax.
- Corptax Mainframe can be installed on IBM or compatible systems having at least the capacity of an IBM 4300 system.

The company also provides customization services using any Corptax product.

Industry Markets

FDSI's fiscal 1989 revenue was derived from across all industry sectors. The company has more than 300 of the Fortune 1000 companies as clients.

Geographic Markets

One hundred percent of the company's fiscal 1989 revenue was derived from the U.S.

Branch offices are located in New York City (NY) and Chicago (IL).

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Computer Hardware and Software

FDSI has one IBM 4341 at its headquarters in Los Angeles operating under VM/CMS.

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COMPANY PROFILE

FINANCIAL DECISION SYSTEMS, INC.
28035 Dorothy Drive
Agoura Hills, CA 91301
(818) 706-2000

Warren Richard, President
Private Corporation
Total Employees: 55
Total Revenue, Fiscal Year End 4/30/87: $5,000,000

THE COMPANY

- Financial Decision Systems, Inc. (FDSI), founded in 1975 by Warren Richards, develops and markets corporate tax management software packages and provides associated tax processing services. FDSI also provides professional services involving the development of custom courseware for its own products.

- FDSI's fiscal 1987 revenue reached approximately $5 million, a 56% increase over fiscal 1986 revenue of $3.2 million.

  - The company's management attributes growth in revenue to its new microcomputer-based application software package.

- As of April 30, 1987, FDSI employed 55 persons, segmented as follows:

Marketing/sales	9
Customer support	26
Programmers/analysts	15
General and administrative	5
	55

- Primary competition for FDSI's tax management products comes from Computer Language Research, Inc., Information Systems of America, Inc., and Price Waterhouse.

KEY PRODUCTS AND SERVICES

- Approximately 87% of FDSI's fiscal 1987 revenue was derived from software products, 11% from remote computing services, and the remaining 2% from professional services.

  - Of its software revenues, 75% was generated from its Corptax microcomputer-based application packages, and 25% from Corptax Mainframe.

- FDSI's Corptax family of seven products operate on IBM PC, XT, AT, and compatible microcomputers under PC-DOS 2.0. The products include:

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- Micro Corptax, a corporate income tax return system.
- Corptax Calendar, a tax report tracking system.
- Corptax Linx, a trial balance and reporting system.
- Corptax State Planner, a micro-based multi-state tax planning system.
- Corptax Gain/Loss, a long-term and short-term assets tracking system.
- Corptax Asset Manager, a fixed asset depreciation system.
- Corptax Customize, a columnar corporate income tax system of combined and unitary state returns.

- Corptax Mainframe is a corporate tax planning and compliance system that offers an interface program allowing conversion of information directly from a General Ledger tape to user-defined Book 1120 format.
  - The system can be integrated with Corptax Linx and Micro Corptax.
  - Corptax Mainframe can either be installed on in-house mainframes or can be accessed via the Corptax remote computing network.
    - The in-house installation option requires an IBM-compatible environment having at least the capacity of an IBM 4300 system.
- The company also provides customization services using any Corptax product.

INDUSTRY MARKETS

- FDSI's fiscal 1987 revenue was derived from across industry sectors.
- The company has more than 200 of the Fortune 500 companies as clients. Clients include Beatrice Companies, Inc., Chevron Industries, Inc., The Dun & Bradstreet Corporation, Metropolitan Life Insurance Co., and Motorola, Inc.

GEOGRAPHIC MARKETS

- One hundred percent of the company's fiscal 1987 revenue was derived from the U.S.
- Branch offices are located in New York City (NY) and Chicago (IL).

COMPUTER HARDWARE AND SOFTWARE

- FDSI has one IBM 4341 at its headquarters in Los Angeles operating under VM/CMS.

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Robert W. Brady
Vice President

COMPANY HIGHLIGHT

FINANCIAL INDUSTRY SYSTEMS
150 Windsor Street
Hartford, CT 06115
(203) 728-4390

James Rowe, President
General partnership of Martin Marietta Corp. and Hartford Financial Systems, Inc.
Total employees: 534
Total revenues fiscal year end 12/31/78: $16,000,000

THE COMPANY

- Financial Industry Systems (FIS) was founded in 1973 as a joint venture partnership between Hartford Financial Systems, Inc. (a subsidiary of Hartford National Bank and Trust Co.) and the Martin Marietta Corporation to offer services to the banking, insurance, and brokerage industries.

- The company currently provides facilities management for banks and insurance companies in addition to payment systems services and software. The principal software packages are:

  - PIPS, automated clearing house-bank interface
  - PIPS-by-phone, consumer bill paying
  - PIPS-GIRO, corporate remittance processing

- Revenues have increased 35% from approximately $11.85 million in fiscal 1977 to $16.00 million in fiscal 1978.

- The company has targeted banking for its services market. New products will all be directed toward increasing FIS's share of the bank processing and software marketplace.

  - The major competition for its software packages comes from Stockholder Systems, Inc.
  - Competition for its bank data processing contracts comes from National Sharedata, Electronic Data Systems, Systematics, individual banks such as Mellon (Pittsburgh) and Citibank (New York), and to a lesser extent Decimus (a subsidiary of Bank of America).

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KEY PRODUCTS AND SERVICES

- More than 80% of FIS revenues are generated by on-site facilities management (FM) contracts with approximately 30 commercial banks and insurance companies. The customer banks have an average of $400 million in assets; three have more than $1 billion in assets. Remaining revenues are largely derived from the sale of its PIPS (Paperless Item Processing System) software package first introduced in 1975. Currently installed at over 200 commercial and savings banks, PIPS allows user banks to interface with both its customers (consumers, employers, other banks) and their Automated Clearing Houses (ACHs).

- The FM contracts involve what FIS terms "Resource Management." Typically, FIS assumes responsibility for an existing bank data center, converts it to a combination of the customer bank and FIS software, utilizes existing bank hardware, and begins data processing for the customer bank and its correspondent banks. FIS may then market services to other banks through this data center. A "cooperative" data center results wherein both shared costs and shared facilities allow economies of scale not otherwise available.

  - The bank data processing includes DDA, savings, on-line CIF, trust, and other bank applications processing in addition to other general business processing (as required by the customer).
  - FIS will also perform all necessary merchant processing to support commercial relationships established by its client banks.

- Insurance FM contracts are run using the same principles as bank contracts, with small insurance companies being processed through large insurance company data centers managed by FIS. Processing services include insurance and general business applications.

- In 1976, FIS introduced on-line credit union processing as an added service through its bank data centers. Services include share draft and other credit union processing as well as general business applications. Credit union clients use FIS client banks for clearance of share drafts.

  - FIS currently has ten credit union clients using this service. Major competition comes from Chase Manhattan Bank in New York, currently the nation's largest clearing house for credit union share drafts.
  - During 1978, FIS introduced a minicomputer version of the Credit Union System. Presently, they have 20 clients committed to the new system.

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Financial Industry Systems (FIS) was disbanded over the last year (the general partners decided "to get a divorce").

- PIPS (and all related systems including AFT-Automated Funds Transfer) went to University Computing Corporation (728-2877).
- FM (facilities management) is now with Florida Computing Services (FCS) (243-0376), one of the general partners.
- Credit Union was absorbed by Martin Marietta Data Systems (728-4708).

Anyone dialing the company's telephone number (203) 728-4390 is connected with a recording that briefly gives the above information and refers questions on accounting & payroll to Sandy Rosen of Martin Marietta, (301) 897-6783, in Baltimore, MD.

Sharie

- PIPS, the FIS software package, has six standard modules which are available separately or as a total package. The total package licenses for $18,700, including one year of maintenance. A typical user installs four or five modules for about $15,000 plus 10% of the purchase price for yearly maintenance. PIPS modules are:

  - Direct deposit service for payroll, social security, pensions, interest, dividends, and annuities.
  - Preauthorized payment service for standard and flexible bill payments. (Standard bills include car, insurance, and mortgage payments; flexible bills include credit card, telephone, and utility bills.)
  - Automatic Transfer Generator module allowing automation of debit and credit inter-bank and intra-bank standing orders.
  - Customer Reformatter for converting magnetic tapes to ACH compatible format. Reformatter II converts ACH magnetic tape to the appropriate applications format.
  - Processing summary, including input processing, pending file update, and output distribution.

- PIPS modules have the following features:

  - Compatible NACHA/SCOPE format.
  - Interregional ACH exchange.
  - Automated exception processing for non-ACH items.
  - Customized processing for internal correspondents for both DDA and savings transactions.
  - Complete warehousing capability for both originating and receiving bank.
  - Automatic settlement reporting for input and output settlement.
  - Customized editing by input source to meet ACH standards.
  - Item/batch deletions prior to distribution.
  - Reject reentry through dummy files.
  - Customized depositor processing.
  - Optional separate posting of credits prior to settlement date.

- PIPS-by-Phone, a new service introduced last year, is a consumer bill paying software package. The software package permits consumers to automatically and remotely authorize either payment of merchant accounts or intra-bank transfer of funds to PIPS-by-Phone accounts. (When used in connection with PIPS-GIRO, the consumer can transfer funds between financial institutions.)

  - The consumer writes or calls his bank or uses a touchtone telephone connected to his bank's data center to authorize payment and give payment instructions.
  - The system will accept post-dated transactions, automate fixed payment schedules, and maintain financial records for income tax and household budgeting purposes.
  - It has a base price of $28,500 including one year of maintenance.

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- PIPS-GIRO, also introduced last year, is a software package offering corporate remittance processing. It permits inter-bank funds transfers of large and small amounts of money. GIRO is now principally used in the U.S. for large money transfers between financial institutions - PIPS-GIRO will permit financial institutions to offer low-dollar funds transfers to their corporate clients.

  - Its features include expansion of the PIPS-by-Phone system to permit inter-bank transfers and automated Lock Box for bill paying.
  - PIPS-GIRO is included as part of the basic PIPS-by-Phone package.

- Management expects PIPS-by-Phone and PIPS-GIRO to increase the percentage of revenues FIS derives from PIPS software packages.

- All PIPS modules are written in ANSI COBOL and will run on IBM System/360 and System/370 under DOS or OS, as well as on Burroughs medium-sized computers.

- In 1978, FIS announced an Automated Funds Transfer system (AFT) with a line to the Fedwire (Federal Reserve Wire) automated money transfer network. AFT functions include:

  - Fedwire processing
  - Pending and history storage
  - Statement rendering
  - "Due from bank" processing
  - Settlement
  - Audit and management reports
  - Interface with Bankwire administrative work
  - DDA updates
  - Automatic task initiation

APPLICATIONS FIS offers primarily specialty services with banking and insurance applications.

INDUSTRY MARKETS Approximately 90% of FIS revenues are generated by the banking industry (commercial banks, credit unions). The remainder are from the insurance industry.

GEOGRAPHIC MARKETS

- FIS software customers are distributed throughout the U.S.

- Data centers are located in Connecticut, Illinois, Indiana, Iowa, Michigan, New Jersey, and Pennsylvania. Branch offices are in Illinois, Indiana, Michigan, and Pennsylvania.

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INPUT

COMPUTER HARDWARE AND SOFTWARE

- FIS currently has eleven bank data centers and two insurance data centers. Management anticipates adding a new data center this quarter. The computer mainframe equipment now includes:

  - 2 Burroughs B4700
  - 2 Burroughs B2700
  - 2 IBM System/370 Model 158
  - 1 IBM System/370 Model 145
  - 1 IBM System/370 Model 125
  - 2 IBM System/360 Model 40
  - 1 IBM System/360 Model 30

- Clients provide their own on-line terminals for accessing the FIS resource center data bases. Terminal equipment includes:

  - IBM System/34
  - IBM System/5-3
  - IBM System/32
  - IBM 3600s
  - IBM 2980s
  - Burroughs TC200s
  - NCR 399
  - Various CRT and hard copy terminals

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COMPANY HIGHLIGHT

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FINANCIAL INDUSTRY SYSTEMS
150 Windsor Street
Hartford, CT 06115
(203) 728-4271

James Rowe, President
General partnership of Martin Marietta Corp. and Hartford Financial Systems, Inc.
Total employees: 481
Total revenues, fiscal year end 12/31/76: $15,500,000*

THE COMPANY

- Financial Industry Systems (FIS) was founded in 1973 as a joint venture partnership between Hartford Financial Systems, Inc. (a subsidiary of Hartford National Bank and Trust Co.) and the Martin Marietta Corporation to offer banking services.

- The company currently provides facilities management for banks and insurance companies in addition to payment systems services and software. The principal software packages are: PIPS (automated clearing house-bank interface), PIPS-by-Phone (consumer bill paying), and PIPS-Giro (corporate bill paying).

- The major competition for its software package comes from Stockholder Systems, Inc. Competition for its bank data processing contracts comes from National Sharedata, Electronic Data Systems, individual banks such as Mellon (Pittsburgh) and Citibank (New York), and to a lesser extent Decimus and Systematics.

- The company has targeted banking for its services market. New products will all be directed toward increasing FIS's share of the bank processing and software marketplace.

KEY PRODUCTS AND SERVICES

- More than 85% of FIS revenues are generated by on-site facilities management (FM) contracts with approximately 20 commercial banks and insurance companies. The customer banks have an average of $400 million in assets; three have more than $1 billion in assets. Remaining revenues are derived from the sale of its PIPS (Paperless Item Processing System) software package first introduced in 1975. Currently installed at 180 commercial and savings banks, PIPS allows user banks to interface both with customers (consumers, employers, other banks) and with its Automated Clearing House (ACH).

*INPUT estimate

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- The FM contracts involve what FIS terms Resource Management. Typically, FIS assumes responsibility for an existing bank data center, converts it to a combination of the customer bank and FIS software, utilizes existing bank hardware, and begins data processing for the customer bank and its correspondent banks. FIS may then market services to other banks through this data center. A "cooperative" data center results wherein both shared costs and shared facilities allow economies of scale not otherwise available.

  - The bank data processing includes DDA, savings, on-line CIF, trust, and other bank applications processing in addition to other general business processing as required by the customer.
  - FIS will also perform all necessary merchant processing to support commercial relationships established by its client banks.

- Insurance FM contracts are run using the same principles as bank contracts, with small insurance companies being processed through large company data centers managed by FIS. Processing services include insurance and general business applications.

- In 1976, FIS introduced on-line credit union processing as an added service through its bank data centers. Services include share draft, and other credit union processing as well as clearance and general business applications. Credit union clients use FIS client banks for clearance of share drafts. FIS currently has ten credit union clients using this service. Major competition comes from Chase Manhattan Bank in New York, currently the nation's largest clearing house for credit union share drafts.

- PIPS, the FIS software package, has six standard modules which are available separately or as a total package. The total package licenses for $18,700 including one year of maintenance. A typical user installs four or five modules for about $15,000 plus 10% of the purchase price for yearly maintenance. PIPS modules are:

  - Direct deposit service for payroll, social security, pensions, interest, dividends and annuities.
  - Preauthorized payment service for standard and flexible bill payments. (Standard bills include car, insurance, and mortgage payments; flexible bills include credit card, telephone, and utility bills.)
  - Internal transfer module allowing automation of debit and credit inter-bank and intra-bank standing orders.
  - Guaranteed payment module, developed to guarantee Social Security payments, can be used to guarantee any type of standard payment.

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- Reformatter I program for converting magnetic tapes to ACH compatible format. Reformatter II converts ACH magnetic tape to the appropriate applications format.
- Processing summary, including input processing, pending file update, and output distribution.

- PIPS modules have the following features:

  - Compatible NACHA/SCOPE format.
  - Interregional ACH exchange.
  - Automated exception processing for non-ACH items.
  - Customized processing for internal correspondents for both DDA and savings transactions.
  - Complete warehousing capability for both originating and receiving bank.
  - Automatic settlement reporting for input and output settlement.
  - Customized editing by input source to meet ACH standards.
  - Item/batch deletions prior to distribution.
  - Reject re-entry through dummy files.
  - Customized depositor processing.
  - Optional separate posting of credits prior to settlement date.

- PIPS-by-Phone, a new module introduced this year, is a consumer bill paying software package. The software package permits consumers to automatically and remotely authorize either payment of merchant accounts or intra-bank transfer of funds to PIPS-by-Phone accounts. (When used in connection with PIPS-GIRO, the consumer can transfer funds between financial institutions.)

  - The consumer writes or calls his bank or uses a touch-tone telephone connected to his bank's data center to authorize payment and give payment instructions.
  - The system will accept post-dated transactions, automate fixed payment schedules, and maintain financial records for income tax and household budgeting purposes.
  - It has a base price of $19,500 including one year of maintenance.

- PIPS-GIRO, also introduced this year, is a software package offering corporate bill paying. It permits inter-bank funds transfers of large and small amounts of money. GIRO is now principally used in the U.S. for large money transfers between financial institutions; PIPS-GIRO will permit financial institutions to offer low-dollar funds transfers to their corporate clients.

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- PIPS-GIRO features include expansion of the PIPS-by-Phone system to permit interbank transfers and automated Lock Box for bill paying.
- PIPS-GIRO has a base price of $19,500 including one year of maintenance.

- Management expect PIPS-by-Phone and PIPS-GIRO to increase the percentage of revenues FIS derives from PIPS software packages.

- All PIPS modules are written in ANSI COBOL and will run on IBM System/360 and 370 under DOS or OS, as well as on Burroughs computers.

APPLICATIONS FIS offers primarily specialty services with banking and insurance applications.

INDUSTRY MARKETS Approximately 90% of FIS revenues are generated by the banking industry. The remainder are from the insurance industry.

GEOGRAPHIC MARKETS

- FIS customers are almost all located in New England, the Northwest, and the Midwest.

- Data centers are located in Connecticut, Illinois, Indiana, Michigan, New Jersey, and Pennsylvania. Branch offices are in Illinois, Indiana, Michigan, and Pennsylvania.

COMPUTER HARDWARE AND SOFTWARE

- FIS currently has nine bank data centers and two insurance data centers. Management anticipates adding a new data center this quarter. The equipment now includes:

Number	Mainframe
2	Burroughs B4700
2	Burroughs B2700
2	IBM 370/158
1	IBM 370/145
1	IBM 370/138
1	IBM 370/125
2	IBM 360/40
1	IBM 360/30

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COMPANY HIGHLIGHT/FINANCIAL INDUSTRY SYSTEMS

- Clients provide their own on-line terminals for accessing the FIS resource center data bases. Terminal equipment includes:
  - IBM System/5-3
  - IBM System/32
  - IBM 3600s
  - IBM 2980s
  - Burroughs TC200s
  - NCR 399
  - Various CRT and hard copy terminals

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COMPANY BRIEF

Primary Industry-Specific Market: Banking and Finance

Financial Telecommunications
810 7th Avenue
26th Floor
New York, NY 10019
(212) 307-1616

CEO: G. Chichilinsky, President
Subsidiary of: FITEL, Ltd.
Founded: 1985

Employees: 24
Revenue (FYE 6/30/87): $10 million*

The Company: Provides processing and professional services to the international securities industry

Sources of Revenue:
- Processing Services (70%)
- Professional Services (30%)
  - Consulting (70%)
  - Education and Training (30%)

Key Products and Services:
- Processing
  - Financial Telecommunications maintains a value-added network through which clients collect and exchange information on the trading of foreign securities

- Professional Services
  - Consulting: Systems design of systems for automation of foreign securities trading.
  - The company trains clients to use its value added network. Financial Telecommunications also teaches traders of international securities how to streamline their operations using computers.

Target Industries:
- Banking and finance (100%)

Geographic Markets:
- U.S. (60%)
- Europe (20%)
- Other international (20%)
- Sales Offices: Financial Telecommunications has a European subsidiary in London--Financial Telecommunications, Ltd.

*Company estimate

October 1986

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FIDATA CORPORATION
(Formerly Bradford National Corporation)
67 Broad Street
(212) 530-7890

Alan C. Winters, President and CEO
Public Corporation: AMEX
Total Employees: 3,200
Total Revenue, Fiscal Year End 12/31/84: $150,442,000
Computer Services Revenue: $130,900,000*

FIDATA CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1984	1983	1982	1981	1980
Revenue	$ 150,442	$ 144,406	$ 134,614	$ 130,628	$ 110,106
. Percent increase from previous year	4%	7%	3%	19%	20%
Income (loss) from continuing operations before taxes	$ (16,252) (a)	$ (7,185)	$ 1,918	$ 225	$ 1,156
. Percent increase (decrease) from previous year	126%	(475%)	752%	(81%)	(45%)
Income (loss) from discontinued operations	-	$ (71)	$ (496)	$ (10,12)	$ 1,651
Net income (loss)	$ (13,252)	$ (8,088)	$ 408	$ (327%)	(22%)
. Percent increase (decrease) from previous year	64%	(b)	$ 104%	$ (327%)	(22%)
Net earnings (loss) per share	$ (3.00)	$ (1.92)	$ 0.10	$ (2.52)	$ 1.10
. Percent increase (decrease) from previous year	56%	(b)	104%	(329%)	(23%)

(a) 1984 operating income before other deductions was $5.9 million. Deductions of an unusual or nonrecurring nature totaled $22.2 million and consisted of the following:

*INPUT estimate

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- A $16.3 million provision for the loss related to the litigation surrounding the Lion Capital Group loan and related external legal costs.

  - On May 2, 1984, Lion Capital Group, a customer of Bradford Trust Company, filed for protection under the bankruptcy laws. As part of its function as a securities clearing agent, Bradford (Fidata) had advanced to this customer $44.4 million which was collateralized by securities in excess of that amount. Although Bradford (Fidata) asserted the status of a secured creditor with a first lien on the securities involved, its right to those securities was contested by other Lion creditors. In November 1984, after analyzing the cost and risks of continued and protracted litigation, Bradford (Fidata) agreed to a settlement with these other parties, taking a $14 million loss, plus legal costs.

- A $5.9 million loss on the disposition of the company's non-bank securities clearance operations.

(b) Percent change exceeds 1,000%.

- On February 20, 1985, Bradford National Corporation shareholders approved management's decision to change the company's name to Fidata Corporation.

  - The primary purpose of the name change was to provide the company with an identity in keeping with the computerized financial products and related administrative services it provides to the financial services industry.

  - The name Fidata, comprised of the first two letters of "financial" and the word "data," reflects this concept.

- Fidata management states that 1984 financial results have been negatively impacted by the following:

  - Unusual or nonrecurring deductions of $22.2 million in 1984, consisting of the $16.3 million loss related to the Lion matter and the $5.9 million loss on the disposition of the non-bank bond clearing business conducted by Fidata Trust Company (formerly Bradford Trust Company), which was not profitable in 1984 or 1983. Operating income for 1984, excluding these deductions, amounted to $6 million.

  - Research and development expenditures of $5.6 million in 1984, compared to $4.5 million in 1983, and $1.9 million in 1982. The growth represents expenditures for a new system for the mutual fund industry, known as the Personal Asset Recordkeeping (PAR) system.

  - Product advertising and business promotion costs of approximately $1 million in 1984, compared to $300,000 in 1983 and $100,000 in 1982.

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- Recent acquisitions/divestitures include the following:

  - During 1984 Fidata acquired the custody operations of Wells Fargo, N.A., serving over 160 financial institutions, and European American Bank. Terms of the acquisitions were not disclosed.

  - In early 1985 Fidata Trust Company, a Fidata subsidiary, announced the signing of an agreement in principle with Security Pacific Clearing & Services Corporation, a division of Security Pacific Corporation, to sell Fidata's clearing business for non-bank dealers and brokers to Security Pacific.

    . The non-bank portion of Fidata's bond clearing business, which was discontinued during 1984, represents annual revenue of approximately $20 million, but has not been profitable for the past two years.

    . The sale was finalized in April 1985. Fidata will receive a portion of the first year's gross revenue as payment for the sale. Fidata will still maintain its clearing services for dealer banks.

  - On August 15, 1985, Fidata announced that an agreement in principle had been signed for Mellon Bank Corporation to acquire Fidata's Pittsburgh subsidiary, Fidata Services Incorporated (formerly Bradford Financial Processing Services, Inc.) for approximately $6 million.

    . Fidata Services, with annual revenue of approximately $9.1 million, provides automated trust accounting, asset management, and retail marketing services for more than 115 financial institutions nationwide.

    . Fidata management has stated that this transaction is the beginning of a program to dispose of other divisions of Fidata, and that the company is engaged in discussions with several prospective purchasers as part of that program. Paine Webber Incorporated is acting as Fidata's financial advisor in connection with its disposition program.

  - On August 26, 1985, Fidata announced that its principle subsidiary, Fidata Trust Company New York, had reached an agreement in principle to sell certain of its assets and liabilities to a subsidiary of The Bank of New York Company, Inc. Fidata also announced it reached an agreement in principle to sell to a subsidiary of The Bank of New York Company, Inc., the government loan processing division and the data processing division of Fidata's transfer agent subsidiary, Fidata Securities Management, Inc. (formerly Bradford Securities Operations, Inc.), and the stock of Fidata Trust Company of California (formerly Bradford Trust Company of California).

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- Fidata Trust Company New York had 1984 revenue of approximately $76.1 million. It is anticipated that The Bank of New York Company subsidiary will acquire most of the assets and assume most of the liabilities of Fidata Trust Company New York.

- Revenue for the six months ending June 30, 1985 was $64.6 million, a 15% decrease from revenue of $76.2 million for the same period in 1984. Net income was $590,000 compared to $2.3 million for the same period a year ago.

SOURCE OF REVENUE

- Fidata's revenue is derived from service fees and interest (a portion of which is related to computer services).
  - The distinction between service fee and interest is often only a matter of form, in that interest is earned on customers' deposits at Fidata's subsidiary trust companies, in lieu of service fees.
  - A five-year summary of these sources of revenue follows:

	1984	1983	1982	1981	1980
Service fees	$ 102,487	$ 102,4331	$ 90,903	$ 75,472	$ 66,749
Interest	47,955	42,075	43,711	55,156	43,357
Total	$ 150,442	$ 144,406	$ 134,614	$ 130,628	$ 110,106

- Fidata's 1984 revenue is estimated to have been derived as follows ($ millions):

Processing services	95%
Professional services	3
Software products	2
	100%

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- A three-year summary of revenue contribution from Fidata's ongoing services, net of related interest expense, follows:

FIDATA CORPORATION
NET REVENUES BY SERVICE
($ millions)

FISCAL YEAR / ITEM	1984		1983		1982	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Custodial and related trust services	$ 38.8	33%	$ 30.7	29%	$ 23.8	27%
Transfer agency services	37.0	32	37.4	36	32.0	36
Mutual fund shareholder servicing	23.8	20	20.6	20	20.4	23
Asset management accounting systems	8.8	8	7.5	7	7.7	9
Data processing services	7.1	6	7.3	7	6.8	8
Other and eliminations	0.8	1	0.9	1	(2.7)	(3)
Total net revenue - ongoing services	$ 116.3	100%	$ 104.4	100%	$ 88.0	100%
Nonbank securities clearance	$ 19.5	-	$ 18.2	-	$ 20.6	-
Other revenue and adjustments (a)	$ 14.6	-	$ 21.8	-	$ 26.0	
Total revenue	$ 150.4	-	$ 144.4	-	$ 134.6	-

(a) Includes revenue from other than ongoing services, interest expense netted against the revenues of the ongoing services, and other miscellaneous adjustments.

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COMPANY HIGHLIGHT

FIRST COMPUTER CORPORATION
Empire Building
360 Robert Street
P.O. Box 43603
St. Paul, MN 55164
(612) 291-5877

Alan R. Buffington, President
Subsidiary of First Bank System, Inc.
Total Employees: 509
Total Revenues Fiscal Year End 12/31/79: $18.6 million
Non-Captive Revenues: $4.6 million

THE COMPANY

- First Computer Corporation (FCC) was established in 1966 as a subsidiary of First Bank System, a $12 billion regional bank holding company, to provide data processing and related services for the parent organization. FCC currently meets the needs of 92 member banks and trust companies in addition to providing processing services to more than 2,000 banks in the upper Midwest.

- The company's revenues for 1979 were $18.6 million, up 12% over 1978 revenues of $16.6 million. FCC forecasts a growth rate of 26% in 1980. If achieved, revenues will be $23.5 million.

  - Non-captive revenues account for 25% of total revenues. This figure is not projected to change significantly.

  - A five-year financial summary follows:

FCC
Five-Year Financial Summary
($ Thousand)

ITEM \ FISCAL YEAR	1979	1978	1977	1976	1975
Revenues	$18,612	$16,568	$15,025	$13,834	$13,496
. Percent change from previous year	12%	10%	9%	3%	28%

- FCC recognizes that its growth is attributed to the established structure of its parent company's organization. First Bank System's affiliate banks, with

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offices in Minnesota, North Dakota, South Dakota, Montana, and Wisconsin, both use and market the services of FCC.

- First Computer Corporation's services are offered through its computer services division which has operating centers in Minnesota, North Dakota, South Dakota, Montana, and Wisconsin.

- The company increased its full-time staff from 425 employees in 1978 to 509 in 1979. Employees are categorized as follows:

- Customer and software support	203
- Computer operations	272
- Administrative	34
TOTAL	509

- The primary competitor of FCC is Northwest Computer Services, a similarly organized subsidiary of Northwest Bank Corporation.

KEY PRODUCTS AND SERVICES

- FCC's 1979 revenues are estimated as follows:

Service Type	Percent of Total	Revenue Value ($ Million)
Processing services	88%	$16.4
Professional services	12	2.2
TOTAL	100%	$18.6

  - The company projects that 1980 revenues for these services will be $19.8 million and $3.7 million, respectively. Non-captive revenues are generated primarily from processing activities.

- Batch services account for an estimated 65% of FCC's processing operations with the balance derived from remote computing.

  - FCC offers batch and on-line services to clients in the vicinity of the St. Paul data center. Users located in the states served by the company send data to ten regional collection stations for processing in St. Paul.

  - Applications provided include:

    . Demand deposit.

    . Central information file.

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  - Personal trust.
  - Installment loans.
  - Savings.
  - Time deposit.
  - Commercial loans.
  - General ledger.
  - Stock transfer.

- The first five of the above applications are the largest revenue producers.
- Additionally, FCC provides on-line savings and credit card processing. On-line teller terminal support services, part of First Bank system's FAST BANK service, are also operated by FCC. FAST BANK allows clients to make transactions from terminals located in retail stores. During 1979, 14 facilities were added bringing the total number of locations in the network to 35. By the end of 1980 an additional 15 will be installed.
- FCC is in the process of reviewing the possibility of implementing a DDP capability to members of the First Bank System. The company is considering a source data entry device that will support data capture, editing, and validation.
- Non-banking-related processing is confined to payroll processing for clients of member banks.
- FCC offers microfiche services to its users.

- Professional services in the form of systems design and custom programming contribute $2.2 million to FCC's revenues. The company develops and supports the software that is subsequently marketed by member banks.

INDUSTRY MARKETS

- Apart from limited commercial processing, FCC services are specialized in the banking industry.

GEOGRAPHIC MARKETS

- One hundred percent of the company's revenues are derived from within the U.S.

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- The heaviest concentration of clients is in Minnesota. Clients are also located in Illinois, Iowa, Missouri, Montana, North Dakota, South Dakota, Wisconsin, and Wyoming.

COMPUTER HARDWARE

- FCC operates two IBM 3033s, MP with an MVS operating system at its St. Paul data center.
  - Computer equipment used at the batch relay stations includes:
    - Two IBM 370/115s DOS, VS.
    - One IBM 4331 DOS, VS.
    - Seven IBM 360/20s.
  - The regional centers are located in Duluth and Rochester (MN); Billings, Great Falls, and Helena (MT); Fargo and Minot (ND); Rapid City and Sioux Falls (SD); and Wausau (WI).

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program

February 1998

F.I. Group - Call Center Services

For Call Centres services in the U.K., contact:
F.I. Group
Atlantic House
Imperial Way - Worton Grange
Reading RG2OTD
Tel: +44 1189 31(5000)
Fax: +44 1189 31 54 49
Internet: http://www.figroup.co.uk

The following profile outlines the services and support offered by F.I. Group for Call Center Services

Company Background

F.I. Group is a UK based supplier of computer software services to major organizations whose businesses depend on technology.

F.I. Group's primary focus is on applications management. Other major activities of the company include business process implementation as well as the complementary services of IT training and the temporary placement of IT personnel.

In 1995, F.I. Group started to provide call center services. The 1996 services revenues related to call center operations are up to one million dollars and a significant growth is expected.

Call Centre Solutions

F.I. Group offers a wide range of call center services from the establishment and operational management of a full customer sales and services system to the provision of individual service components.

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These service components cover all the life cycle stages of developing and operating a call center:

- Creation of client-server and mainframe systems integrated with telephony
- Training and management of call center staff
- Documentation and implementation of new business systems.

Exhibit 1 shows F.I. Group main call center activities by service components.

Exhibit 1

F.I. Group Call Centers Major Focus, 1997-2000

	1997	2000
Call Collection/Processing	Yes	5
Calls Routing/Reception	Yes	5
Field Service Support and Assistance	No	3
Debt Chasing	No	3
Complaints Handling	No	3
Telemarketing	No	4
Telesales/Sales tracking	No	5
Customer Information Services	Yes	5
Complete Call Center Service Provision	Yes	5

1 = low , 5 = high Source: F.I. Group

Exhibit 2 shows main call centers IT software and services F.I. Group provides.

Exhibit 2

F.I. Group Call Centers IT Software and Services Revenues Breakdown, 1996

Type	% of 1996 Revenues
Professional Services Consultancy	10
Implementation	20
Integration of Existing Applications	30
Application Management	20
Business Operations	20
Total	100

Source: F.I. Group

Operations and Structure

In 1996, F.I. Group was operating 2 call centers in the UK representing a total of 20 consultants and agents.

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References

F.I. Group clients are out of three major sectors:

- Banking, finance and insurance
- Central government
- Business services

Exhibit 3

Selected Call Centers Case Studies - F.I. Group

Customer	Project Date	Project Details
Central Government (UK)	01/97	Complete outsourcing: • Provision of a call centre • Development of a new computer system • Provision of administrative services within a very short time scale
World-wide Information Services Group	01/96	Development of an integrated IT and telephony system using: • Predictive dialling linked to databases on RS6000 and IBM Mainframes

Source: F.I. Group

Major Strengths

- Integration with existing IT systems
- People management
- Service culture of the company

Company Strategy of Development

- To partner top UK organizations in providing business information processing across finance, retail and services sectors
- Customer relationships management
- Electronic commerce

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

June 1996

First Data Corporation

Chairman & CEO: Henry C. Duques
401 Hackensack Avenue
Hackensack, NJ 07601
Phone: (201) 525-4700
Fax: (201) 342-0401
Internet: http://www.firstdata.com

Status:	Public
Employees:	36,000 (12/95)
Revenue:	$4,186,200,000
Fiscal Year End:	12/31/95

Key Points

- First Data Corporation (FDC) provides a range of information and transaction processing services.
- The acquisition of First Financial Management Corporation (FFMC) during 1995 more than doubled FDC's revenue. While FDC and FFMC had common merchant credit card processing, collections, and payment instruments businesses, FFMC's other major service areas (including check authorization and guarantee services, health care claims processing services, imaging services, and in-store banking services) represent new service areas for FDC.
- As a result of the acquisition of Western Union's money transfer business, FDC is actively pursuing the divestiture of its MoneyGram™ operation to satisfy an agreement with the Federal Trade Commission.
- The acquisition of Card Establishment Services, Inc. (CES) in 1995 expanded FDC's merchant processing business. The operations of CES have been merged with

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FFMC's NaBANCO merchant credit card processing operations, and FDC's Envoy and TeleMoney credit and debit card authorization services. The combined organization is known as First Data Merchant Services.

- FDC rolled out its Merchant Bank Alliance Program in 1995. To date, 10 banks, representing more than $50 billion in annualized merchant card volume, have joined the program.

Company Description

FDC provides a range of processing services, including transaction processing and back-office support for card issuers; merchant and consumer payment services; debt collection and accounts receivable management; mutual fund processing; health care claims administration; data imaging and information management; and other related services.

Operations/Structure

FDC is organized into the following major service areas:

- *Domestic Card Issuer Services*— FDC's Card Services Group, based in Omaha (NE), provides the infrastructure for financial institutions to meet the needs of their cardholders: credit, debit, and commercial card programs; database marketing; fraud/risk management; financial recovery; customer service; co-branding; application processing; and card embossing. These services also are provided for private-label, co-branded and oil credit card programs. Principal offices are in Lenexa (KS), Marietta (GA), Omaha (NE), and Tulsa (OK).

  - First Data Resources provides third-party processing of bankcard transactions.

  - This service area also includes FDC's debt collection and accounts receivable management business (Nationwide Credit and ACB Business Services).

- *Domestic Merchant Processing Services*— FDC's Card Services Group provides a complete range of credit and debit authorization, processing and settlement services to financial institutions and independent sales organizations for their merchant customers. Merchant clients receive state-of-the-art processing services, including Internet-based processing, check processing capabilities, customized programs, and a comprehensive fraud-management database. Principal facilities are in Palo Alto (CA), Aurora (CO), Hagerstown (MD), Houston (TX), Melville (NY), and Sunrise (FL).

  - First Data Merchant Services (which combines the operations of FFMC's NaBANCO operations with FDC's Card Establishment Services and Envoy operations) provides authorization, processing, and settlement of credit and debit card transactions.

  - TeleCheck, based in Houston, provides the verification or guarantee of check transactions.

  - The First Data Merchant Bank Alliance and U$A Value Exchange programs reflect FDC's commitment to partner with its clients. Alliance banks benefit from merchant processing — primarily through First Data Merchant Services, which provides card payment processing services and is a leading processor of merchant Visa and MasterCard transactions. In 1995, First Data formed the U$A Value Exchange, a partnership owned by credit card issuing and acquiring financial institutions that will become operational

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in 1996. Member financial institutions have the opportunity to offer customized promotions to consumers. FDC manages the day-to-day operations of U$A Value Exchange and provides related processing services and technology enhancements.

- *International Card Services*—FDC's principal processing facilities outside the U.S. include the following units:
  - FDR Limited provides bankcard transaction processing services in the U.K.
  - First Data Resources Australia operates the largest independent funds transfer network in Australia.
- *Payment Instruments*— FDC's payment instruments business consists of two key units: Western Union Financial Services and Integrated Payment Systems (IPS).
  - As a worldwide leader in electronic consumer nonbank money transfer services, Western Union helps its clients send money practically anywhere, anytime.
  - In 1995, IPS Retail Services, the nation's second-largest provider of money orders, introduced a new transaction-processing system that automates money order sales. IPS Financial Services provides check outsourcing services to financial institutions.
  - The consolidation of Western Union and IPS is taking shape. This new organization will further position FDC as a leading worldwide provider of processing services in electronic commerce.
  - Principal facilities are in Bridgeton (MO), Englewood and Lakewood (CO), and Paramus (NJ).
- *Investment Processing Services*—First Data Investor Services (formerly The Shareholder Services Group), based in Boston, provides integrated and customized mutual fund processing services to investment organizations and the banking industry. Additional facilities are in Marlboro and Westborough (MA).
- *Health Care Administrative Services*—FDC's FIRST HEALTH® unit, acquired with FFMC, provides health care claims processing and cost management services to the self-insured corporate market. FIRST HEALTH is headquartered in Salt Lake City (UT) and has principal facilities in Glen Allen (VA), Minneapolis (MN), and Wayne (PA).
- *Specialty Services*—FDC offers various services that complement its transaction processing services through the following units:
  - First Image Management Company, acquired with FFMC and based in Norcross (GA), provides document management services, including data acquisition, storage, access, output, and distribution.
  - International Banking Technologies, based in Atlanta, develops in-store bank branches in supermarkets and other retail superstores throughout the U.S.
  - Teleservices, based in Omaha (NE), provides operator and customer support services to a leading long-distance telephone company.
  - Call Interactive, based in Omaha (NE), provides customized 800 telephone interactive voice services.

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- First Data InfoSource, based in Omaha (NE), provides electronic information services to the financial, retail, direct marketing, collections, and insurance industries.

MicroBilt, acquired with FFMC, was repositioned in 1994 as the internal research and development arm of the company. It develops and supports data capture, communications, and information distribution systems to multilocation customers, including financial institutions, retailers, restaurants, and health care and pharmaceutical providers.

A two-year summary of source of revenue by major service area is shown below.

Management

FDC's key executives are listed on the following page.

First Data Corporation
Two-Year Source of Revenue Summary
($ Millions)

	Fiscal Year			
	1995		1994	
Major Service Area	Revenue $	Percent of Total	Revenue $	Percent of Total
Domestic Card Issuer Services	$800	19%	$600	20%
Domestic Merchant Processing Services	890	21%	560	18%
International Card Services	190	5%	170	6%
Payment Instruments	825	20%	230	7%
Investment Services	245	6%	210	7%
Health Care Services	405	10%	380	12%
Other Services	530	12%	580	19%
Divested or to be divested (a)	195	5%	300	10%
Other income	105	2%	50	1%
Total	$4,185	100%	$3,080	100%

(a) Includes MoneyGram and Health Systems Group.

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FDC Key Executives

Name	Title
Henry C. Duques	Chairman and CEO
Lee Adrean	EVP and CFO
Henry T. DeNero	EVP, Western Union Commercial, Integrated Payment Systems, First Data Retail Card Services, International Banking Technologies, First Data Payment Services and CashTax Inc.
Charles T. Fote	EVP, Western Union Consumer, TeleCheck, Call Interactive, Teleservices, MicroBilt and First Data Technologies
Walter M. Hoff	EVP, First Data Card Services Group, which includes First Data Resources, Electronic Funds Services, First Data Issuing Services (Bankcard Program Services, Nationwide Credit), First Data Merchant Services, First Data Oil Services and First Data Solutions
Robert J. Levenson	EVP, First Data Investor Services Group, FIRST HEALTH, First Image Management Company
Edward C. Nafus	EVP, First Data International, which includes FDRLimited (U.K.) and First Data Australia
David P. Bailis	General Counsel

Company Strategy

FDC's business strategy is to generate recurring revenue by developing long-term contractual relationships with clients that have decided to outsource various transaction and information processing services.

- The company's training and development for managers and service representatives are focused on the "lifetime value" of these client relationships.
- FDC's ongoing objective is to promote client retention and loyalty by providing superior services that consistently exceed client expectations.
- Specifically, FDC focuses on a "service-profit chain" model, whereby FDC's growth and profitability are linked to satisfied and loyal employees who deliver quality services that promote the success of their clients.

FDC continues to pursue revenue growth through five primary sources:

- Internal growth, which consists primarily of increased transaction processing for existing clients
- Sales of ancillary products and enhanced services to existing clients

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- The addition of new clients in existing service areas
- Expansion into adjacent markets where FDC can provide similar information processing services to new client groups
- Acquisitions

Financials

FDC's 1995 revenue reached $4.18 billion, a 36% increase over 1994 revenue of $3.08 billion.

- Net losses of $84.2 million include merger, integration, and impairment charges of $645.7 million ($539.9 million after tax benefits, or $2.43 after tax loss per share) associated with the acquisition of FFMC and the write-off of Envoy goodwill.
- Excluding these charges, pretax income for the year was $813.3 million, up 33% from $611.3 million in 1994.

A five-year financial summary is shown below.

First Data Corporation
Five-Year Financial Summary
($ Millions, except per share data)

	Fiscal Year				
Item	1995	1994	1993	1992	1991
Revenue	$4,186.2	$3,080.5	$2,658.2	$2,228.9	$1,667.8
• Percent change from previous year	36%	17%	18%	34%	N/A
Income from continuing operations before taxes	$167.6	$611.3	$497.1	$283.8	$279.3
• Percent change from previous year	(a) (73%)	23%	75%	2%	N/A
Net (loss) income	$(84.2)	$360.3	$296.4	$153.3	$170.7
• Percent change from previous year	(123%)	22%	93%	(10%)	N/A
Earnings (loss) per share	$(0.39)	$1.71	$1.41	$0.75	$0.91
• Percent change from previous year	(a) (123%)	21%	88%	(18%)	N/A

(a) Includes merger, integration, and impairment charges of $645.7 million ($539.9 million after tax benefits, or $2.43 after tax loss per share).

Growth in existing businesses, principally from new clients and volume increases from existing clients, accounted for approximately half of the revenue increase in 1995. The balance of the growth was from acquisitions, net of the impact of revenue lost from divested businesses.

- Growth in existing businesses was strong in card issuer and merchant processing, as well as payment instrument services, with these service groups experiencing 1995 internal revenue growth exceeding 20%.
- FDC derives revenue in its primary service areas based on a unit price per transaction, on a percentage of dollar volume, or on a combination thereof. The overall growth of FDC is demonstrated by the key indicators shown on the next page.

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First Data Corporation
Financial Transaction Processing Key Indicators

Item	Fiscal Year 1995	Fiscal Year 1994
Card accounts on file	121 million	92 million
Merchant dollar volume	$144 billion	$74 billion
Merchant transactions	4.5 billion	2.8 billion
Payment instrument transactions	365 million	318 million
Mutual fund assets serviced	$360 billion	$277 billion

Interim Results

Revenue for the three months ending March 31, 1996 reached $1.13 billion, a 25% increase over $903.4 million for the same period a year ago. Net income reached $105.8 million, up 26% over $83.9 million for the same period a year ago.

- The results for the prior year include the pooling-of-interests acquisition of FFMC.
- The company's growth in revenue over the prior year's quarter, excluding the effect of acquisitions and divested or to-be-divested businesses, was 20%.
- Expenses for the first quarter of 1996 include a $16.3 million merger, integration, and impairment charge related to FDC's merger with FFMC, which reduced after-tax earnings by about $10.0 million. Excluding these expenses, net income rose 38% to $115.8 million.
- FDC's performance reflects continuing strong growth in the domestic card issuer, merchant processing, and worldwide payment instruments business areas, in part fueled by the overall trend toward electronic commerce. Business volumes in these areas all grew at above-average rates, including growth in cardholder accounts on file of 35%, merchant card transactions processed of 53%, check guarantee and authorization volumes of 24%, and international money transfer transactions of 30%.

Market Financials

FDC's revenue is derived primarily from clients in the banking and finance, retail/merchant, and health care industries.

The company also derives revenue from oil companies, utilities, telecommunications companies, and government entities.

Cross-industry services include money transfers, official checks and money orders, and document management services.

Geographic Markets

Approximately 95% of FDC's 1995 revenue was derived from the U.S. and 5% from international sources.

Acquisitions

FDC's acquisition activity during the past two years is summarized below.

In October 1995, FDC completed the acquisition of First Financial Management Corporation (FFMC) of Atlanta (GA) for approximately 104.5 million shares of FDC common stock. The acquisition was accounted for as a pooling of interests.

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- FFMC had approximately 15,000 employees at the time of the acquisition and 1994 revenue of more than $2 billion.

- The acquisition of FFMC added seven interrelated businesses to FDC, including the following:

  - Western Union, a leading provider of rapid nonbank money transfer services

  - NaBANCO, a leading provider of merchant credit card processing services in the U.S.

  - TeleCheck, a leading provider of check guarantee and verification services worldwide

  - Nationwide Credit, a leading provider of debt collection and accounts receivable management services

  - IBT, the primary provider of in-store banking programs for supermarkets

  - First Image, a leader in document image services

  - FIRST HEALTH, a provider of health care administration services

- FFMC operations constituted approximately one-half of FDC's consolidated revenue for 1995.

In October 1995, prior to its merger with FDC, FFMC acquired Employee Benefit Plans, Inc. of Minneapolis (MN) for $122.4 million plus assumed stock options. The acquisition was accounted for as a purchase.

- EBP is a health care claims processor and plan administrator and has a life insurance subsidiary that sells insurance products ancillary to its processing services.

- The acquisition expands FIRST HEALTH's claims processing volume and client base.

In June 1995, FDC acquired the merchant processing and point-of-sale unit of Envoy Corporation for approximately $175 million.

- Due to the subsequent acquisitions of Card Establishment Services (described below) and FFMC's merchant card processing operations, FDC has decided not to pursue its business plans related to Envoy.

- FDC recorded a $114.7 million impairment charge in 1995.

In March 1995, FDC acquired CESI Holdings, Inc. and its subsidiary Card Establishment Services, Inc. (CES) for approximately $757 million in cash and stock. The acquisition was accounted for as a purchase.

- CES provided merchant card transaction processing services to more than 125,000 merchant clients.

- The operations of CES have been integrated into FDC's First Data Merchant Services unit.

In March 1995, FDC acquired 440 Financial Group, a provider of processing services to bank-managed mutual funds. The operations of 440 Financial Group have been merged into First Data Investor Services Group.

In November 1994, FFMC acquired Western Union Financial Services, Inc. for $1.2 billion in cash and assumed obligations. Western Union provides nonbank money transfer and bill payment services in more than 100 countries. The acquisition was accounted for as a purchase.

During 1994, FDC acquired the third-party mutual fund administration business of The

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Boston Company (TBC), a subsidiary of Mellon Bank, for approximately $36 million.

- Prior to the purchase, FDC was primarily a transfer agent. This transaction doubled FDC's potential marketplace.
- This business was combined with FDC's mutual fund servicing business (First Data Investor Services Group).

During 1994, FDC acquired Citicorp's official check and money order business. These operations were merged into FDC's Integrated Payment Systems unit.

During 1994, FFMC acquired AT&T's Global Information Solutions Information Imaging Systems, which provided a line of information management services to approximately 850 customers through 13 locations across the U.S.

In July 1994, FFMC acquired GENEX Services, Inc. of Wayne (PA) for approximately $60.2 million in FFMC common stock. The acquisition was accounted for as a pooling of interests.

- GENEX provides workers' compensation cost-containment services to the insurance industry. The company had more than 1,000 employees at the time of the acquisition and 120 offices.
- The operations were merged into FFMC's FIRST HEALTH unit.

In May 1994, FDC acquired TeleMoney Services from Ceridian Corporation for $25 million.

- TeleMoney Services provides transaction services, including credit and debit card authorizations.
- The operations of TeleMoney Services have been integrated with CES, Envoy, and NaBANCO into FDC's First Data Merchant Services.

Divestitures

FDC is actively pursuing the divestiture of its MoneyGram operation in 1996 to comply with FDC's agreement with the Federal Trade Commission (FTC) related to the merger with FFMC. As part of the merger, the FTC issued a consent order requiring FDC to sell either MoneyGram or Western Union.

In June 1995, FDC sold its Health Systems Group (HSG) to HBO & Company for approximately $230 million. HSG, with 1994 revenue of approximately $121 million, provided processing services and turnkey systems to approximately 500 hospitals, medical group practices, and medical facilities throughout the U.S., Australia, Puerto Rico, the U.K., and other international locations.

In November 1994, FDC completed the sale of its cable services and hotel reservation businesses for an aggregate of $143 million.

- The Cable Services Group, based in Omaha with approximately 580 employees and annual revenue of $80 million, provides processing services and turnkey systems to cable television operators.
  - Although this unit was profitable, it did not fit into FDC's long-term plans to focus on the financial sector.
  - The Cable Services Group was sold to CSG management and investment partners Morgan Stanley Group and Trident Capital, L.P.
- Anasazi, Inc., based in Phoenix (AZ), provides processing and software to the

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retail, lodging, and financial services industries.

In November 1993, FDC completed the sale of its WATS Marketing of America, Inc. subsidiary for $73 million. WATS Marketing, based in Omaha with approximately 2,000 employees, provides inbound and outbound telemarketing services.

Employees

As of December 31, 1995, FDC had approximately 36,000 employees.

The company currently has approximately 37,000 employees.

Key Products and Services

Domestic Card Issuer Services

FDC's Card Services Group provides processing and related services to financial institutions issuing Visa and MasterCard credit cards, and oil company and retail store credit cards. Financial institution clients include a range of banks, savings and loan associations, and credit unions.

Services are provided throughout the period of each credit/debit card's use, from the moment a card-issuing client accepts an application for a transaction card.

- FDC can monitor the status of a cardholder's application throughout the approval process and can "score" the application using criteria furnished by the client.
- FDC's in-house embossing facility issues cards for new accounts and at renewal dates established by the client for existing card accounts.
- Fraud management services monitor the unauthorized use of cards reported lost or stolen, or which are exceeding credit limits. FDC will coordinate with investigation and enforcement authorities at the card-issuing client's request to assist in preventing unauthorized card use.
- Billing statements are prepared by FDC and mailed directly to cardholders.
- Enhanced services provided by FDC include cardholder database analysis, cardholder behavior scoring, and customized communications to cardholders.
- FDC's Bankcard Program Services provides card-issuing banks with the complete infrastructure for a credit card program, including full back-office support in the areas of application processing, credit support, customer service, and delinquent account processing.
- Revenues for card-issuing services come from fees payable under contracts that primarily depend on the number of transactions processed.

Prior to their merger, FDC (ACB Business Services) and FFMC (Nationwide Credit, Inc.) both provided debt collection and accounts receivable management services.

- FDC has completed the consolidation of of ACB's operations into those of Nationwide. The combined operation will be one of the nation's largest collection services, with more than $4 billion in annualized placement volume.
- Collection services are provided from offices located throughout the U.S., to a variety of clients, including financial institutions (including FDC card-issuing clients), retailers, health care providers, and government agencies.

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- FDC provides collection services related to certain types of American Express cards.

Domestic Merchant Processing Services

FDC and its joint-venture bank alliances contract directly with merchants to provide processing services related to the merchant's acceptance of cards and checks at the point of sale.

- Services include the authorization, processing, and settlement of credit and debit card transactions, and the verification or guarantee of check transactions.

- Fees for full-service merchant sales and processing are generally based on the dollar volume of transactions processed. Merchant dollar volume was $144 billion in 1995, compared to $74 billion in 1994. The acquisition of CES in March 1995 was a major contributing factor to the large volume increase.

In early 1996, FDC began a plan to combine the operations of NaBANCO from FFMC with the CES and Envoy businesses acquired by FDC in 1995.

- The combined entity—First Data Merchant Services—has primary merchant card processing centers in Hagerstown (MD) and Sunrise (FL), with additional volumes of merchant card transactions being processed at FDC's card-issuing processing center in Omaha (NE). These centers support merchant electronic cash registers and dial-up point-of-sale authorization and draft capture terminals.

- First Data Merchant Bank Alliance members include Banc One, Bank of Hawaii, Barnett Banks, Boatment's Bancshares, Huntington Bancshares, PNC Bank, U.S. Bancorp, Wachovia, NationsBank, and Wells Fargo.

- The U$A VALUE EXCHANGE program, formed in 1995, is a partnership owned by credit card issuing and acquiring financial institutions. Member financial institutions can offer customized promotions to consumers. FDC's Card Services Group manages the day-to-day operations of the program and provides related processing services and technology enhancements. Currently, 35 members of this program represent approximately 60 million cardholders.

The TeleCheck system is one of the largest check acceptance services worldwide, operating in the U.S., Canada, Australia, and New Zealand.

- These services are provided using large consumer databases and proprietary risk management systems offered under the TeleCheck trademark.

- FDC acquired the TeleCheck business and its principal franchisee in 1992 and certain other independent franchises in 1993 and 1994. FDC currently operates virtually the entire TeleCheck system, with independent franchisees remaining in only three states and Canada.

- Fees charged to customers for check guarantee services are generally based on the dollar volume of transactions processed, whereas verification fees are based on the number of transactions.

- TeleCheck also provides collection services in conjunction with its check verification services.

International Card Services

Services provided through FDRL in the U.K. and First Data Australia generally mirror the company's domestic card-issuing and

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merchant processing services provided to financial institutions.

In addition, FDC operates the largest independent funds transfer network in Australia, providing funds transfer, debit card, and automated teller machine services. The network extends to all of Australia's principal cities, and is used primarily by credit unions, banks, and building societies.

Payment Instruments

FDC provides nonbank money transfer and bill payment services, using an agent network of more than 50,000 domestic and 12,000 international agent locations (excluding MoneyGram agents) to provide payment instrument transaction services to consumers in more than 120 countries.

Western Union Financial Services provides electronic consumer nonbank money transfer services worldwide.

- Western Union has expanded its worldwide agent base to more than 32,000 locations. Agents include supermarkets, check cashers, parcel service stores, foreign currency exchanges, and other retail establishments.
- Customers can also call toll-free to a Western Union service center and charge the transfer and related fee to their credit card account.
- Western Union's Quick Collect service is a bill payment service that allows utility, mortgage, finance, and collection companies to receive payments on past due accounts from consumers via a money transfer initiated at a participating Western Union agent location.
- Ancillary services include money orders and a prepaid disposable phone card.

Integrated Payment Systems (IPS) provides payment instrument transaction processing to financial institutions and other selling agents. In addition, IPS, through a network of selling agents, provides consumer funds transfer services, as well as payment instrument transaction processing, to retail customers.

- A significant but declining percent of these services is generated from official checks, money orders, and money transfers (American Express Money® Orders, American Express Official Checks, and MoneyGram) issued under an agreement with an American Express subsidiary.
- Official Checks serve as an alternative to a bank's own disbursement items such as teller's or cashier's checks.
- IPS also provides cash management services for corporations and financial services institutions. IPS operates as an electronic clearinghouse to collect, concentrate, and disburse financial information. The electronic link provides customers with instant access to their investment funds and enables cash managers to analyze investments and take advantage of financial opportunities.

In 1996, FDC began implementing a plan to combine the business operations of Western Union and IPS. FDC plans to use the well-recognized Western Union name extensively as it migrates from the American Express name for its payment instrument products.

Investment Processing Services

First Data Investor Services Group provides a variety of back-office processing services to the mutual fund industry, including transfer agent services, fund administration and accounting services, print/mail, fulfillment and proxy services, and retirement account recordkeeping and transaction services. FDC

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markets these services to mutual fund organizations, banks, and other investment organizations desiring to outsource one or more of their back-office processing functions.

The number of mutual fund shareholder accounts serviced by FDC totaled 13.3 million as of December 31, 1995, up from 12.1 million as of December 31, 1994.

Revenues received for fund administration and accounting services primarily consist of annual fees paid in monthly installments based on mutual fund asset levels. Fees for printing, mailing, and proxy solicitations are charged by volume for each job.

Health Care Administrative Services

FIRST HEALTH, based in Salt Lake City (UT), is the largest independent health care administrative services organization in the U.S.. It serves the self-insured corporate and government markets, processing more than $10 billion in claims each year.

- FIRST HEALTH gives its clients access to an array of services with an advanced health care administration system.
- The unit provides claims administration, utilization review, medical case management, data analysis, provider networks, pharmacy benefit management, worker's compensation, and disability cost management services, as well as related insurance products and outsourcing services to HMOs and other health care providers.

FFMC acquired Employee Benefits Plans, Inc. (EBP) in October 1995, expanding FIRST HEALTH's claims processing volume and client base.

- EBP provides managed health care products and services primarily to small and medium-sized companies throughout the U.S.
- Products and services include claims administration and processing, medical cost management programs, and plan design and consulting services.
- In addition, EBP sells health insurance coverages through its EBPLife Insurance Company subsidiary.

FIRST HEALTH's services were expanded by the addition of GENEX Services, Inc. in July 1994, which provides workers' compensation cost-containment services to the insurance industry and to self-insured corporations throughout the U.S., Canada, and Puerto Rico. Services provided include medical and disability case management, medical bill review, and vocational rehabilitation.

Specialty Services

First Image Management Company, acquired with FFMC, provides data imaging services to more than 13,000 customers.

- First Image has implemented a total-solution approach, known as Integrated Document Services, to provide a range of information management services, including data capture, data imaging, micrographics, electronic database management, and output printing and distribution.
- The majority of First Image's revenues are derived from contracts of two to three years in duration.
- First Image now uses third-party equipment suppliers to furnish its clients with imaging equipment and associated maintenance services, following the implementation in 1994 of a business strategy to de-emphasize its equipment sales and related maintenance.

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International Banking Technologies (IBT) provides banking services in supermarkets and supercenter stores, including full-service in-store bank branches, mini-branch banking centers, and check-cashing facilities to financial institutions and food retailers. IBT derives its revenues from fees earned during the design and installation phases and ongoing management of the in-store program between the financial institution and the retailer.

First Data Solutions provides information solutions to the financial, retail, collections, and insurance industries. It provides vast amounts of knowledge to those in the credit, fraud, collections and marketing departments. *First Data InfoSource* is part of First Data Solutions. More than half-a-billion pieces of information on America's consumers and businesses are integrated into a single information source to improve customers' profitability and performance.

Teleservices is the sole external provider of operator and customer support services to a leading long-distance telephone company.

Call Interactive provides customized 800 telephone interactive voice services to gather, process, and disseminate information for client marketing needs. Call Interactive is well-positioned to capitalize on the need for cost-effective alternatives to live operators, the increased acceptance of automated telephone services by consumers and businesses, and the growing consumer demand for access to financial and other data 24 hours a day, 365 days a year.

Marketing and Sales

FDC markets its services through a variety of channels, including direct solicitation and general advertising.

FDC employees are used in the direct solicitation of new clients and the cross-selling of additional FDC services to existing clients.

General advertising is accomplished through industry and trade publications, direct mail, telemarketing, and contact at trade conventions and FDC-sponsored seminars, as well as direct sales.

Western Union maintains a broad-based advertising and marketing program supporting the Western Union brand name and public awareness of Western Union's services.

Alliances

FDC has alliances with certain vendors as follows:

- First Image and Corporate Systems have formed a partnership to provide full-function 800 claim reporting services. The services combine Corporate Systems' CS Teleclaim risk information system with First Image's data acquisition and conversion services.
- FDC and Broadway & Seymour have formed a five-year, multimillion-dollar agreement related to distributed systems for card services. Broadway & Seymour will provide consulting services to First Data and systems integration services to First Data clients in the area of distributed systems for financial institutions to easily and cost effectively maintain, manipulate, and analyze cardholder data directly from the desktops of their employees. FDC is developing the integrated, client/server environment.
- FDC's Card Services Group and Netscape Communications Corporation announced the availability of an Internet payment processing service that will comply with the

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Secure Electronic Transactions specifications from MasterCard and Visa. The ongoing development of this service is evidence of a commitment by First Data and Netscape to open standards and to providing the necessary infrastructure for electronic commerce payment processing.

Competition

Major competitors by business unit include the following:

- Domestic card issuer processing services—Electronic Data Systems, National Data Corp., Select Payment Systems, and Total System Services.
- Domestic merchant processing services—Electronic Data Systems, Electronic Payment Services, National Data Corp., Select Payment Systems, Total System Services, and VeriFone
- Check acceptance services—National Data Corporation and Telecredit
- Data imaging services—Anacomp
- Health care claims processing—EDS, Blue Cross/Blue Shield, Aetna, and Crawford & Co.
- Investment processing services—DST Systems
- Call Interactive—AT&T and West Telemarketing

Assessment

FDC considers its strengths to include:

- A focus on clients. FDC has designed its structure, management, and systems to help clients achieve their goals. With a flat, decentralized organization, FDC believes it can react more quickly, compress response time, and empower colleagues to make decisions that will support client goals. FDC's vision remains: *Every client recommends First Data.*
- A focus on values. All of FDC's activities are based on and guided by the following core values: *Embodying the highest ethical standards, satisfying clients by always exceeding their expectations, treating people with respect and dignity, and creating value for shareholders.*
- A focus on opportunity. FDC, one of the architects of electronic commerce, feels the company has built an industry-leading expertise in this arena over many years, with the opportunities for growth nearly unlimited.
- A focus on growth. FDC requires a high level of performance and caring from colleagues. This has led to the company's creation of a distribution channel that covers 120 countries around the world.

FDC's primary challenges over the coming year include:

- Staying innovative. As an industry leader, FDC's focus must remain on keeping clients well-positioned in the dynamic, changing environment of electronic commerce.
- Maintaining the focus, quickness, energy, and agility of a small company.
- Successfully integrating FDC and FFMC. The new FDC must build a focused employee base that shares the same vision and values and brings the best of both companies to its clients in a seamless way.

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FIRST DATA CORPORATION

American Express Tower
World Financial Center
New York, NY 10285-4560
Phone: (212) 640-4451
Fax: (212) 619-8920

Chairman & CEO:	Henry C. Duques
Status:	Public Corporation
Stock Exchange:	NYSE
Total Employees:	19,400 (12/92)
Total Revenue:	$1,205,320,000
Fiscal Year End:	12/31/92

Key Points

- As a result of two public offerings of First Data Corporation's (FDC's) common stock, American Express' ownership interest in FDC is now 22%.
- The company's business strategy is to generate recurring revenue by developing long-term relationships with clients who have decided to outsource various information processing services.
- FDC supplies a major share of third-party MasterCard and Visa bankcard transaction processing in Britain and the U.S.
- In addition to its traditional bankcard processing activities, in late 1992, FDC entered the oil card and retail card processing business.
- In December 1992, FDC acquired Gerber Alley, a provider of turnkey systems to hospitals and physicians. The acquisition strengthens FDC's client base and gives the company a foothold in the international health care market.
- In September 1992, FDC's First Data Resources subsidiary acquired EFTEL Holdings, operator of the largest EFT network in Australia. The acquisition further expands FDC's international business.

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Company Description

First Data Corporation (FDC) provides processing services, turnkey systems, and related services to the credit card, consumer funds transfer, telemarketing/teleservices, mutual fund, health care, receivables management, and cable television industries.

FDC was originally formed in 1989 as American Express Information Services Corporation (ISC) from businesses previously organized as the Data Based Services Group of American Express Travel Related Services Company, Inc. During 1992, ISC's name was changed to FDC.

FDC/ISC operated as a wholly owned subsidiary of American Express until April 1992, when FDC and American Express made an initial public offering of 50.6 million shares of FDC common stock.

- FDC received net proceeds of $83.1 million from the sale which, after prepayment of a $35.0 million intercompany debt to American Express, resulted in $48.1 million to be used for general corporate purposes.
- The offering resulted in American Express' ownership in FDC declining to 54% of FDC's 110 million outstanding shares.

In March 1993, American Express made a second public offering of 35.2 million shares of FDC common stock, reducing its ownership of FDC to 22%. American Express realized an after-tax gain of $433 million from the sale.

Organization

FDC is currently organized into the following business units:

- First Data Resources (FDR), based in Omaha (NE) with 7,000 employees, provides third-party processing of credit and debit card transactions. FDR also operates a U.K.-based subsidiary, First Data Resources, Ltd. (FDRL) which processes more than 10 million bankcard accounts annually.
- Integrated Payment Systems (IPS), based in Denver with 700 employees, manages and provides payment instrument transaction processing for American Express® MoneyOrder, American Express® Official Check, and MoneyGram℠ from American Express. This unit also provides cash concentration reporting and disbursement services to corporations and financial services institutions as well as a utility bill payment product.
- Health Systems Group (HSG), based in Charlotte (NC) with 1,100 employees, provides processing services and turnkey systems to approximately 700 health care institutions and physicians.

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- Integrated Marketing Services (IMS), based in Omaha with 4,000 employees, offers information management, teleservices, and teleconferencing services. IMS also provides long-distance operator services for MCI.

- WATS Marketing (WATS), based in Omaha with 2,000 employees, provides inbound and outbound telemarketing services. Through its Call Interactive unit, WATS also provides high-capacity 800 and 900 telephone facilities for high-volume interactive voice services.

- Cable Services Group (CSG), formed in 1982, is based in Omaha with 600 employees. CSG provides processing services and turnkey systems to cable television operators.

- The Shareholder Services Group (TSSG), based in Boston (MA) with 1,000 employees, provides shareholder recordkeeping and transfer agency services. Investment companies use TSSG to record and process shareholder account activity, respond to shareholder inquiries, and provide shareholder statements. TSSG was formed in June 1989 when American Express purchased the mutual fund transfer agency business of The Boston Company from Shearson Lehman (a subsidiary of American Express).

- Integrated Systems Technologies (IST), formed during mid-1991, is based in Medford (MA) with 150 employees. IST manages the data processing operations of TSSG and The Boston Company.

- ACB Business Services, Inc. (ACB), based in Phoenix with 1,700 employees, provides accounts receivable management/collection services to the travel and entertainment, health care, oil, retail, and auto industries. This unit was formed in early 1993 by combining FDC's accounts receivable management services with the acquired businesses of ACB Sales & Service and ACB Management Services, Inc. and Ingram & Associates.

- Anasazi, Inc., based in Phoenix (AZ), acquired in early 1993, provides processing and software to the retail, lodging, and financial services industries.

Financials

FDC's 1992 revenue reached $1.2 billion, a 17% increase over 1991 revenue of $1.0 billion. Net income rose 20%, from $118 million in 1991 to $141.4 million in 1992.

During 1992, approximately 5.2% ($63.2 million) of FDC's revenue was derived from American Express and its subsidiaries, including telemarketing and data processing services. In addition, approximately

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4.6% ($55.1 million) of 1992 revenues were derived from fees for shareholder servicing and recordkeeping services provided to mutual funds advised by Shearson Lehman or affiliates of American Express Travel Related Services. During 1991, FDC derived a total of $100.9 million (10% of revenue) from various units of American Express.

A five-year financial summary follows:

FIRST DATA CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions)

	FISCAL YEAR				
ITEM	1992	1991	1990	1989	1988
Revenue	$1,205.3	$1,026.2	$845.0	$672.2	$465.5
· Percent increase from previous year	17%	21%	26%	44%	15%
Income before taxes	$231.6	$191.1	$166.5 (a)	$161.5 (a)	$103.3 (a)
· Percent increase from previous year	21%	15%	3%	56%	1%
Net income	$141.4	$118.0	$102.7	$83.0 (b)	$63.0
· Percent increase from previous year	20%	15%	24%	32%	15%
Earnings per share	$1.30	$1.13	$0.99	$0.80	$0.61
· Percent increase from previous year	15%	14%	24%	31%	15%

(a) Includes pretax gains of $17 million and $38 million on the sale of certain businesses during 1989 and 1990 and a pretax loss of $11 million in 1988 related to the disposal of a business.

(b) Includes a $15 million charge related to a change in the method of accounting for health care related revenues.

Approximately 60% FDC's revenue growth in 1992 came from internal growth and the remainder due to the full year effect of including the results of Signet Limited, the U.K.-based credit card processing firm that was acquired in July 1991.

- FDR's revenues reached approximately $506 million in 1992, compared to $410 million in 1991 and $320 million in 1990. Increases in 1992 were due to the acquisition of Signet and a $20 million increase in domestic operations due to increased transactions and increased sales of ancillary services.

- IPS' payment instruments and consumer funds transfer services business grew by $24 million over 1991, of which $15 million came from an increase in the number of transactions processed and $9

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million from net interest and dividend revenues from the investment portfolio.

- IMS and WATS telemarketing/teleservices business grew $31 million over 1991 due to increased call volumes. Revenues from services provided to MCI (primarily teleservices) comprised 10.7% ($29 million) of FDC's total 1992 revenue.

- TSSG's mutual fund servicing revenue increased $11 million during 1992.

- CSG's cable services revenue increased $4.9 million over 1991 due to increased subscriber accounts as well as additional sales of ancillary services.

- HSG's health systems revenue was virtually unchanged from 1991.

A three-year summary of selected operating data follows:

FIRST DATA CORPORATION
THREE-YEAR OPERATING DATA SUMMARY
(in millions)

	FISCAL YEAR		
ITEM	1992	1991	1990
Credit cards on file	58.3	53.7	44.3
Credit card transactions processed	2,257.7	1,697.7	1,233.5
Payment instrument transactions processed	201.0	172.7	159.8
Cable and subscription accounts	15.3	14.2	14.8
Mutual fund shareholder accounts	9.8	8.7	8.7
Inbound calls received	35.1	33.2	35.1

- FDR's credit card transactions processed increased 33% in 1992 compared to a 38% increase in 1991 due primarily to the inclusion of new accounts acquired with Signet Limited in July 1991. Cardholder accounts on file grew 8% to 58.3 million in 1992, compared to 53.7 million in 1991, and 44.3 million in 1990.

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- TSSG added over one million shareholder accounts during 1992, bringing the total number of accounts to 9.8 million as of December 31, 1992, compared with nearly 8.7 million as of December 31, 1991.
- IPS' payment instrument transactions processed increased 16% during 1992 to 201 million for 172.7 million in 1991.
- Cable and subscription accounts increased 8% during 1992 to nearly 15.3 million, up from 14.2 million in 1991.

Acquisitions

In early 1993, FDC acquired Anasazi, Inc. of Phoenix (AZ). Terms of the purchase were not disclosed.

- Anasazi, with annual revenue of about $20 million, provides UNIX-based reservation software and processing services to the hospitality (lodging) industry, retail information systems, and support services to the financial services industry.
- Anasazi currently operating as a separate unit of FDC.

In April 1993, FDR completed negotiations with a group of domestic banks to acquire certain assets, including a processing facility, and to enter into long-term processing contracts for an aggregate payment of approximately $35 million.

In December 1992, FDC announced plans to expand its accounts receivable management services by purchasing two providers of these services.

- ACB Sales & Service, Inc. and ACB Management Services, Inc. (collectively known as ACBS), acquired in March 1993, both provide collection services to clients in the travel and entertainment card, retail, banking, and oil and gas industries. American Express Travel Related Services is a significant customer of ACBS.
- Ingram & Associates, Inc., acquired in March 1993, provides receivables management services primarily to health care providers and governmental agencies.
- FDC has merged these various businesses to form ACB Business Services, Inc., which is headquartered in Phoenix (AZ).

In December 1992, FDC acquired Atlanta-based Gerber Alley, expanding its products and services to the health care industry. The initial cash purchase price was $24 million, plus additional payments contingent on future performance of Gerber Alley's products.

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- Gerber Alley, with approximately 700 employees and annual revenue of $75 million, provides turnkey systems to hospitals and physicians. The company has approximately 100 clients worldwide.

- The acquisition strengthens FDC's client base to approximately 700 hospitals and gives the company an entrance to the international health care IS market.

- The operations of Gerber Alley are being merged into FDC's Health Systems Group.

In September 1992, FDR purchased EFTEL Holdings Limited, operator of the largest independent electronic funds transfer network in Australia. The acquisition gives FDR further opportunities to grow in the international marketplace.

Acquisitions made during 1991 and 1990 include the following:

- In July 1991, First Data Resources acquired Signet Ltd., a U.K.-based credit card processing firm, for $235 million.

  - Signet was acquired from four British banks - National Westminster, Midland, Lloyds, and Royal Bank of Scotland.

  - Signet processes transactions for about 10 million bank cards in Europe. It now operates as First Data Resources Ltd. (FDRL).

- In January 1990, TSSG acquired Mellon Mutual Fund Services Group from Mellon Bank. The unit provides mutual fund transfer agency services for approximately 1.2 million remote service shareholder accounts.

Competitors

Major competitors by business unit include the following:

- FDR: Total Systems Services, Maryland Bank (formerly Southwestern States Bankcard Association), Electronic Data Systems, and Financial Card Services for card processing; National BankCard Corporation (a division of First Financial Management Corporation), National Data Corporation, Card Establishment Services, and National Processing Company for merchant processing

- IPS: Western Union Financial Services and Travelers' Express

- HSG: Shared Medical, HBO & Company, IBAX

- IMS: National Data Corporation and AT&T

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- WATS: Matrixx Marketing, West Telemarketing, and American Transtech (a subsidiary of AT&T) for inbound telemarketing; Dial America Marketing, Idelman Telemarketing, Matrixx Marketing, and Teleservice Resources for outbound telemarketing
- TSSG: DST Systems
- CSG: CableData
- Call Interactive: AT&T and West Telemarketing

Key Products and Services

INPUT estimates that approximately $900 million of FDC's total 1992 revenue was derived from U.S. information services, of which over 90% was from processing, network services, and systems operations and the remainder from software products, turnkey systems, hardware, and other.

A summary of FDC's information services activities by business unit follows:

First Data Resources (FDR):

One hundred percent of FDR's revenue is derived from transaction processing and associated support services.

FDR is a third-party processor of MasterCard and VISA card transactions in the U.S. and the U.K. During the year ending December 31, 1992, FDR processed over 2.2 billion transactions for 58.3 million cardholder accounts.

In addition to its traditional bankcard processing activities, FDR entered the oil card and retail card processing business in 1992. FDR signed agreements with a major oil company (Shell) and several retailers (including Brooks Brothers) in late 1992 to commence processing in 1993 for credit cards issued by them.

FDR manages the credit and debit card activities of more than 700 financial institutions.

- FDR provides clients with processing and rapid access to a variety of account information in various formats.
- Services are provided to financial institutions that issue MasterCard and VISA cards to cardholders (cardholder processing), as well as to financial institutions that make arrangements with merchants for

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acceptance of MasterCard or VISA cards as methods of payment (merchant processing).

- In March 1993, FDR released account-level processing to its credit card processing clients.

As a cardholder processor, FDR also provides a variety of credit card-related services, including card embossing, transaction reporting, settlement and billing services, as well as certain security/fraud management services, for card-issuing financial institutions.

As a merchant processor, FDR authorizes transactions, enters data into its system, and provides settlement and related services for financial institutions with merchant relationships.

- Authorization services include authorizing a cardholder's purchase at the merchant location, either electronically or by voice, through an on-line authorization network.

- Data capture includes data collection and entry, based on transaction information provided by merchants to their banks and forwarded to FDR. Information is posted to the cardholder account if maintained by FDR; if not, the information is transmitted electronically through the MasterCard and VISA networks.

- FDR has recently expanded its merchant processing services to a bank customer to include merchant support services, such as customer service, chargeback processing, and collection activities.

- FDR is exploring the expansion of its merchant processing by acquiring certain merchant portfolios in cooperation with its bank customers.

As both a cardholder and merchant processor, FDR performs settlement between financial institutions by transferring funds, either directly or through the MasterCard and VISA networks. Funds transferred by FDR are reimbursed by the card-issuing financial institution on a daily basis. FDR also provides transaction reporting services generally consisting of daily financial reports and updated financial information.

Ancillary products and services provided to clients include a behavior scoring product, a computerized letter product, and a cardholder data base system.

FDR's revenues consist primarily of fees payable under processing contracts. Pricing depends on the number of transactions processed rather than the dollar amount of each transaction.

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First Data Resources, Ltd., headquartered in Basildon, provides credit card processing services in the U.K.

In September 1992, FDR purchased EFTEL, operator of the largest independent funds transfer network in Australia. EFTEL provides funds transfer, debit card, and automated teller machine services. Users of the network primarily include Australian credit unions, as well as Australian building societies and banks. The network services all principal Australian cities.

Health Systems Group (HSG):

HSG provides processing services and turnkey systems for financial and patient care applications to approximately 700 U.S. hospitals. Revenue from this unit has remained relatively flat over the past three years.

HSG currently offers the following services/systems:

- The Hospital Financial Control (HFC) system, is a distributed processing service currently used by over 450 hospitals.
  - HFC and HFC EXPRESS provide more than 30 modules and 4,000 reports including accounts payable and receivable, fixed assets, payroll, physician statistics, and third-party billing.
  - Data is transmitted via on-line terminals or PCs from the hospital to large-scale IBM processors at HSG's data center in Charlotte.
- The Patient Care System (PCS) is a Tandem-based distributed system that manages all patient information and recordkeeping, including patient admissions and registrations, test and procedure ordering, result reporting, historical recordkeeping, and nursing treatments. PCS is often used as a front-end to HFC. There are currently over 30 PCS installations.
- SAINT is an in-house system designed for small to medium-sized hospitals that provides integrated financial and patient care software modules in support of administrative, clinical, and data communications. Systems are installed at the clients' site and managed by HSG. SAINT systems are currently used by approximately 300 hospitals.
- Image MedRecs™, introduced in 1991, is a complete medical records imaging system that automates the medical records department and integrates it with other hospital departments.

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As a result of the acquisition of Gerber Alley, HSG also provides The Precision Alternative®, an integrated health care information system, which serves medium to large-sized hospitals.

- The system runs on DEC VAX Series 4000, 6000, and 9000 and HP 3000 Series 900 computers.
- Modules are available for patient care, financial accounting, clinical, and decision support applications.
- There are currently about 100 Precision Alternative installations in the U.S. and other countries.

Cable Services Group (CSG):

CSG provides processing services and PC-based turnkey systems to the cable television industry. As of December 1992, CSG serviced approximately 800 cable systems nationwide and on-line computer service providers having an aggregate of approximately 15.3 million cable subscribers.

Applications available through CSG include the following:

- Cable Control System, for on-line subscriber billing and information management
- CableMAX, a PC-based subscriber management system for smaller cable companies
- CompuLink, an advertising sales management tool
- Viewpoint, an on-line tool used to sort, analyze, combine, and organize information in an existing cable customer data base.

CSG usually enters into agreements with its cable television system clients for initial periods of no less than two years, with optional renewal periods selected by the client for periods of at least six months and as long as three years. Revenues consist primarily of customer fees paid monthly based on the number of cable subscribers, as well as fees for additional services that are billed on a per transaction basis.

In addition to its headquarters in Omaha, CSG has regional offices in Englewood (CO) and Lexington (KY) and a national sales force. CSG's data center is in Englewood.

During 1992, CSG and IBM Information Network (now Advantis) announced a multi-year contact whereby IBM would link more than 8,000 terminals in cable television companies nationwide to CSG's

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mainframe computer. Cable operators can use the network to respond to subscriber service or billing requests.

The Shareholder Services Group (TSSG):

TSSG provides mutual fund shareholder servicing and recordkeeping services to 35 client groups nationwide and is currently servicing 9.8 million shareholder accounts, compared to 8.7 million accounts at the end of 1991.

Services available through TSSG include:

- Transaction processing, including preparation and processing of incoming daily trades or maintenance items, and monitoring and controlling them by individual client-specific quality control departments to ensure compliance with corporate policy and regulatory requirements
- Reconciliation of internal bank accounts to facilitate cash settlements between the funds and shareholders
- Handling of telephone requests from existing and prospective shareholders and financial consultants
- Daily front-end and back-end verification of all trades

TSSG's data center is managed by IST.

Clients include Dreyfus, Shearson Lehman, Pioneer Funds, and Seligman Funds.

Integrated Payment Systems (IPS):

IPS provides payment instrument transaction processing to financial institutions and other selling agents. It addition, IPS, through a network of selling agents, provides consumer funds transfer services, as well as payment instrument transaction processing, to retail customers.

These services involve the marketing and processing of the following types of payment instruments and services: American Express Money® Orders, American Express® Official Checks, and MoneyGram℠ (from American Express) consumer funds transfer services.

- Official Checks are available at approximately 300 financial institution selling agents. Money orders and moneygram funds transfer services are available through a network of selling agents with approximately 54,500 sales outlets, including financial institutions and check cashing bureaus, selected supermarkets,

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convenience stores, packaging and postal outlets, and airport facilities. These outlets also include approximately 660 American Express TRS and representative offices.

- IPS manages these operations for American Express Travel Related Services (TRS).

- Payments to IPS from TRS for these services were approximately $124.8 million in 1992, compared to $100.7 million in 1991, and $66.5 million in 1990.

- IPS and TRS have agreed to phase out the trademarked products currently offered and IPS will begin to issue its own payment instruments under a new name during a five-year transition period.

IPS also provides cash management services for corporations and financial services institutions.

- IPS operates as an electronic clearinghouse to collect, concentrate, and disburse financial information. The electronic link provides customers with instant access to their investment funds and enables cash managers to analyze investments and take advantage of financial opportunities.

Integrated Marketing Services (IMS):

The Teleservices Division of IMS provides long-distance call completion services to customers of inter-exchange carriers.

The Government Services Division provides transaction processing and telecommunications services to federal, state, and local government agencies.

- The division has developed an insurance verification system that provides on-line patient information to health care providers, and an electronic Medicaid eligibility verification system allowing providers to verify recipient eligibility prior to provision of Medicaid services.

- The division has a contract with the U.S. Postal Service to provide nine-digit (ZIP + 4) Zip Code information. This division initiated the National Change of Address service for first class mail through a non-exclusive license agreement with the U.S. Postal Service.

IMS' Marketing Information Services Division (MIS), formed in 1987, provides a variety of data base services used to enhance overall direct marketing programs.

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- FastData℠ is a joint service provided with Donnelley Marketing, Inc. FastData provides on-line access to an up-to-date consumer information file (the Donnelley DQI data base) of over 90 million U.S. households and 9 million businesses. Services range from address verification, through in-depth household descriptions, to family and neighbor profiles including demographic information.

- Data base enhancement services provided include merge/purge, data appending, NCOA/Zip+4, and data base storage and maintenance.

WATS Marketing (WATS):

WATS provides a range of inbound and outbound telemarketing services.

- The Inbound Division provides inbound telemarketing services to Fortune 500 companies and their direct response agencies, catalog marketers, publishers, and government agencies.

  - WATS Marketing manages programs for advertisers who use 800- and 900-numbers to offer products or information.

  - More than 1,500 trained telemarketing representatives are used to serve callers.

- The Outbound Division uses lists of current customers or self-targeted prospects to make calls to assist clients with lead qualification, direct sales, data collection and surveys, customer service, and account management. This division specializes in credit card acquisitions and warranty programs for manufacturers' products.

WATS major client, MCI Telecommunications, contributed 10.7% ($129 million) to FDC's total 1992 revenues.

CALL INTERACTIVE:

CALL INTERACTIVE, formed in August 1989, uses 800 and 900 telephone lines for direct sales, market research, contests, audience participation in broadcasts, and other applications.

Services include:

- AT&T's High Capacity Service for processing up to 10,000 calls in 90 seconds

- Instant data analysis of caller responses

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- Call Limiting, which allows sponsors to limit the number of calls per day from any household
- Automated, high-volume order taking, recording, and transcription
- Live operator and customer service availability

Clients include Capital Cities/ABC, Inc., MTV Networks and V-H1, and Beatrice/Hunt-Wesson Foods.

Integrated Systems Technologies (IST):

IST currently manages the data processing operations of TSSG and The Boston Company pursuant to a facilities management agreement.

In May 1993, Shearson Lehman sold The Boston Company to Mellon Bank. The agreement states that IST will continue to manage The Boston Company's data processing operations for a period of at least three more years.

ACB Business Services:

ACB Business Services provides accounts receivable management services to the travel and entertainment, health care, oil, retail, and auto industries.

- HSG Business Office Services, introduced in 1991, is a data management system designed to improve a hospital's cash flow through:
  - More effective collection of the self-pay portion of fees due from patients
  - More accurate and timely processing of claims submitted by the hospital to third party payors such as insurance companies, Medicare, and Medicaid.

Industry Markets

FDC's revenue is derived primarily from clients in banking and finance, retail, medical, and cable television, and direct marketers in various industries.

FDR clients include a variety of banks at both the regional and national levels and, in the U.S., savings and loan associations and credit unions participating in MasterCard, VISA, automated teller machine, and debit and calling card programs.

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Health Systems Group serves approximately 700 acute care hospitals ranging in size from under 100 to more than 700 beds, and medical centers located throughout the U.S.

Cable Service Group clients include multiple cable system operators and cable programming providers.

Geographic Markets

Approximately 86% of FDC's 1992 revenue was derived from the U.S. and 14% from international sources. A two-year geographic financial summary follows:

FIRST DATA CORPORATION
TWO-YEAR GEOGRAPHIC FINANCIAL SUMMARY
($ millions)

	FISCAL YEAR			
	1992		1991	
ITEM	$	PERCENT OF TOTAL	$	PERCENT OF TOTAL
Revenue				
- U.S.	$1,034.4	86%	$935.5	91%
- U.K.	167.6	14%	90.7	9%
- Other	3.3	--	--	--
Total	$1,205.3	100%	$1,026.2	100%
Operating income				
- U.S.	$223.6	84%	$204.9	92%
- U.K.	41.5	16%	16.7	8%
- Other	0.4	--	--	--
Total	$265.5	100%	$221.6	100%

FDC is headquartered in New York and has a corporate office in Omaha.

FDR is based in Omaha and U.S. facilities in Atlanta (GA), Baltimore (MD), Boston (MA), San Mateo (CA), and Tulsa (OK). FDR also maintains operations in the U.K. (Basildon) and Australia (Sydney).

IPS is headquartered in Englewood (CO).

IMS and WATS are based in Omaha.

HSG is based in Charlotte (NC).

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TSSG is based in Boston and has additional facilities in Cleveland (OH) and Providence (RI).

CSG is based in Omaha and maintains branch offices in Lexington (KY) and Englewood CO).

IST is based in Medford (MA).

ACB and Anasazi are based in Phoenix (AZ).

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FIRST DATA CORPORATION

American Express Tower
World Financial Center
New York, NY 10285-4560
Phone: (212) 640-4451

Chairman & CEO:	Henry C. Duques
Status:	Public Corporation
Stock Exchange:	NYSE
Total Employees:	19,400 (12/92)
Total Revenue:	$1,205,320,000
Fiscal Year End:	12/31/92

Key Points

- As a result of two public offerings of First Data Corporation's (FDC's) common stock, American Express' ownership interest in FDC is now 22%.
- The company's business strategy is to generate recurring revenue by developing long-term relationships with clients that have decided to outsource various information processing services.
- FDC supplies a major share of third-party MasterCard and Visa bankcard transaction processing in Britain and the U.S.
- In addition to its traditional bankcard processing activities, in late 1992, FDC entered the oil card and retail card processing business.
- In December 1992, FDC acquired Gerber Alley, a provider of turnkey systems to hospitals and physicians. The acquisition strengthens FDC's client base and gives the company a foothold in the international health care market.
- In September 1992, FDC's First Data Resources subsidiary acquired EFTEL Holdings, operator of the largest EFT network in Australia. The acquisition further expands FDC's international business.

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Company Description

First Data Corporation (FDC) provides processing services, turnkey systems, and related services to the credit card, consumer funds transfer, telemarketing/teleservices, mutual fund, health care, and cable television industries.

FDC was originally formed in 1989 as American Express Information Services Corporation (ISC) from businesses previously organized as the Data Based Services Group of American Express Travel Related Services Company, Inc. During 1992, ISC's name was changed to FDC.

FDC/ISC operated as a wholly owned subsidiary of American Express until April 1992, when FDC and American Express made an initial public offering of 50.6 million shares of FDC common stock.

- FDC received net proceeds of $83.1 million from the sale which, after prepayment of a $35.0 million intercompany debt to American Express, resulted in $48.1 million to be used for general corporate purposes.

- The offering resulted in American Express' ownership in FDC declining to 54% of FDC's 110 million outstanding shares.

In March 1993, American Express made a second public offering of 32 million shares of FDC common stock, reducing its ownership of FDC to 22%. American Express realized an after-tax gain of $433 million from the sale.

Organization

FDC is currently organized into the following business units:

- First Data Resources (FDR), based in Omaha (NE) with 7,000 employees, provides third-party processing of credit and debit card transactions. FDR also operates a U.K.-based subsidiary, First Data Resources, Ltd. (FDRL) which processes more than 13 million bankcard accounts annually.

- Integrated Payment Systems (IPS), based in Denver with 700 employees, manages and provides payment instrument transaction processing for American Express® MoneyOrder, American Express® Official Check, and American Express® MoneyGram products. This unit also provides cash concentration reporting and disbursement services to corporations and financial services institutions.

- Health Systems Group (HSG), based in Charlotte (NC) with 1,100 employees, provides processing services and turnkey systems to health care institutions and physicians.

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- Integrated Marketing Services (IMS), based in Omaha with 4,000 employees, provides inbound and outbound telemarketing services.

- WATS Marketing (WATS), based in Omaha with 2,000 employees, offers information management, teleservices, and teleconferencing services. Through its Call Interactive unit (a joint venture between FDC and AT&T), WATS also provides high-capacity 800 and 900 telephone facilities for high-volume interactive voice services.

- Cable Services Group (CSG), formed in 1982, is based in Omaha with 600 employees. CSG provides processing services and turnkey systems to cable television operators.

- The Shareholder Services Group (TSSG), based in Boston (MA) with 1,000 employees, provides shareholder recordkeeping and transfer agency services. Investment companies use TSSG to record and process shareholder account activity, respond to shareholder inquiries, and provide shareholder statements. TSSG was formed in June 1989 when American Express purchased the mutual fund transfer agency business of The Boston Company from Shearson Lehman (a subsidiary of American Express).

- Integrated Systems Technologies (IST), formed during mid-1991, is based in Medford (MA) with 150 employees. IST manages the data processing operations of TSSG and The Boston Company.

- ACB Business Services, Inc. (ACB), based in Phoenix with 1,700 employees, provides accounts receivable management/collection services to the travel and entertainment, health care, oil, retail, and auto industries. This unit was formed in early 1993 by combining FDC's accounts receivable management services with the acquired businesses of ACB Sales & Service and ACB Management Services, Inc. and Ingram & Associates.

- Anasazi, Inc., based in Phoenix (AZ), acquired in early 1993, provides processing and software to the retail, lodging, and financial services industries.

Financials

FDC's 1992 revenue reached $1.2 billion, a 17% increase over 1991 revenue of $1.0 billion. Net income rose 20%, from $118 million in 1991 to $141.4 million in 1992.

During 1992, approximately 5.2% ($63.2 million) of FDC's revenue was derived from American Express and its subsidiaries, including telemarketing and data processing services. In addition, approximately 4.6% ($55.1 million) of 1992 revenues were derived from fees for

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shareholder servicing and recordkeeping services provided to mutual funds advised by Shearson Lehman or affiliates of American Express Travel Related Services. During 1991, FDC derived a total of $100.9 million (10% of revenue) from various units of American Express.

A five-year financial summary follows:

FIRST DATA CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions)

	FISCAL YEAR				
ITEM	1992	1991	1990	1989	1988
Revenue	$1,205.3	$1,026.2	$845.0	$672.2	$465.5
· Percent increase from previous year	17%	21%	26%	44%	15%
Income before taxes	$231.6	$191.1	1$166.5 (a)	$161.5 (a)	$103.3 (a)
· Percent increase from previous year	21%	15%	3%	56%	1%
Net income	$141.4	$118.0	$102.7	$83.0 (b)	$63.0
· Percent increase from previous year	20%	15%	24%	32%	15%
Earnings per share	$1.30	$1.13	$0.99	$0.80	$0.61
· Percent increase from previous year	15%	14%	24%	31%	15%

(a) Includes pretax gains of $17 million and $38 million on the sale of certain businesses during 1989 and 1990 and a pretax loss of $11 million in 1988 related to the disposal of a business.

(b) Includes a $15 million charge related to a change in the method of accounting for health care related revenues.

Approximately 60% FDC's revenue growth in 1992 came from internal growth and the remainder due to the full year effect of including the results of Signet Limited, the U.K.-based credit card processing firm that was acquired in July 1991.

- FDR's revenues reached approximately $506 million in 1992, compared to $410 million in 1991 and $320 million in 1990. Increases in 1992 were due to the acquisition of Signet and a $20 million increase in domestic operations due to increased transactions and increased sales of ancillary services.

- IPS' payment instruments and consumer funds transfer services business grew by $24 million over 1991, of which $15 million came

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from an increase in the number of transactions processed and $9 million from net interest and dividend revenues from the investment portfolio.

- IMS and WATS telemarketing/teleservices business grew $31 million over 1991 due to increased call volumes. Revenues from services provided to MCI (primarily teleservices) comprised 10.7% ($29 million) of FDC's total 1992 revenue.

- TSSG's mutual fund servicing revenue increased $11 million during 1992.

- CSG's cable services revenue increased $4.9 million over 1991 due to increased subscriber accounts as well as additional sales of ancillary services.

- HSG's health systems revenue was virtually unchanged from 1991.

A three-year summary of selected operating data follows:

FIRST DATA CORPORATION
THREE-YEAR OPERATING DATA SUMMARY
(in millions)

	FISCAL YEAR		
ITEM	1992	1991	1990
Credit cards on file (a)	58.3	53.7	44.3
Credit card transactions processed	2,257.7	1,697.7	1,233.5
Payment instrument transactions processed	201.0	172.7	159.8
Cable and subscription accounts	15.3	14.2	14.8
Mutual fund shareholder accounts	9.8	8.7	8.7
Inbound calls received	35.1	33.2	35.1

- FDR's credit card transactions processed increased 33% in 1992 compared to a 38% increase in 1991 due primarily to the inclusion of new accounts acquired with Signet Limited in July 1991. Cardholder accounts on file grew 8% to 58.3 million in 1992, compared to 53.7 million in 1991, and 44.3 million in 1990.

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- TSSG added over one million shareholder accounts during 1992, bringing the total number of accounts to 9.8 million as of December 31, 1992, compared with nearly 8.7 million as of December 31, 1991.
- IPS' payment instrument transactions processed increased 16% during 1992 to 201 million for 172.7 million in 1991.
- Cable and subscription accounts increased 9% during 1992 to nearly 15.3 million, up from 14.2 million in 1991.

Acquisitions

In early 1993, FDC acquired Anasazi, Inc. of Phoenix (AZ). Terms of the purchase were not disclosed.

- Anasazi, with annual revenue of about $20 million, provides UNIX-based reservation software and processing services to the hospitality (lodging) industry, retail information systems, and support services to the financial services industry.
- Anasazi currently operating as a separate unit of FDC.

FDR is negotiating with a group of domestic banks to acquire certain assets, including a processing facility, and to enter into long-term processing contracts for an aggregate payment of approximately $35 million.

In December 1992, FDC announced plans to expand its accounts receivable management services by purchasing two providers of these services.

- ACB Sales & Service, Inc. and ACB Management Services, Inc. (collectively known as ACBS) provides collection services to clients in the travel and entertainment card, retail, banking, and oil and gas industries. American Express Travel Related Services is a significant customer of ACBS.
- Ingram & Associates, Inc. provides receivables management services primarily to health care providers and governmental agencies.
- FDC has merged these various businesses to form ACB Services, Inc., which is headquartered in Phoenix (AZ).

In December 1992, FDC acquired Atlanta-based Gerber Alley, expanding its products and services to the health care industry. The initial cash purchase price was $24 million, plus additional payments contingent on future performance of Gerber Alley's products.

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- Gerber Alley, with approximately 700 employees and annual revenue of $75 million, provides turnkey systems to hospitals and physicians. The company has approximately 100 clients worldwide.

- The acquisition will strengthen FDC's client base to more than 700 hospitals and give the company an entrance to the international health care IS market.

- The operations of Gerber Alley are being merged into FDC's Health Systems Group.

In September 1992, FDR purchased EFTEL Holdings Limited, operator of the largest independent electronic funds transfer network in Australia. The acquisition gives FDR further opportunities to grow in the international marketplace.

Acquisitions made during 1991 and 1990 include the following:

- In June 1991, First Data Resources acquired Signet Ltd., a U.K.-based credit card processing firm, for $235 million.

  - Signet was acquired from four British banks - National Westminster, Midland, Lloyds, and Royal Bank of Scotland.

  - Signet processes transactions for about 13 million bank cards in Europe. It now operates as First Data Resources Ltd. (FDRL).

- In January 1990, TSSG acquired Mellon Mutual Fund Services Group from Mellon Bank. The unit provides mutual fund transfer agency services for approximately 1.2 million remote service shareholder accounts.

Competitors

Major competitors by business unit include the following:

- FDR: Total Systems Services, Maryland Bank (formerly Southwestern States Bankcard Association), Electronic Data Systems, and Financial Card Services for card processing; National BankCard Corporation (a division of First Financial Management Corporation), National Data Corporation, and National Processing Company for merchant processing

- IPS: Western Union Financial Services and Travelers' Express

- HSG: Shared Medical, HBO & Company, IBAX

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- IMS: National Data Corporation, MetroNet, AT&T, and Dun & Bradstreet
- WATS: Matrixx Marketing, West Telemarketing, and American Transtech (a subsidiary of AT&T) for inbound telemarketing; Dial America Marketing, Idelman Telemarketing, Matrixx Marketing, and Teleservice Resources for outbound telemarketing
- TSSG: DST Systems
- CSG: CableData
- Call Interactive: AT&T and West Telemarketing

Key Products and Services

INPUT estimates that approximately $900 million of FDC's total 1992 revenue was derived from U.S. information services, of which over 85% was from processing and network services and the remainder from software products, turnkey systems, hardware, and other.

A summary of FDC's information services activities by business unit follows:

First Data Resources (FDR):

One hundred percent of FDR's revenue is derived from transaction processing and associated support services.

FDR is a third-party processor of MasterCard and VISA card transactions in the U.S. and the U.K. During the year ending December 31, 1992, FDR processed over 2.2 billion transactions for 58.3 million cardholder accounts.

In addition to its traditional bankcard processing activities, FDR entered the oil card and retail card processing business in 1992. FDR signed agreements with a major oil company and several retailers in late 1992 to commence processing in 1993 for credit cards issued by them.

FDR manages the credit and debit card activities of more than 700 financial institutions.

- FDR provides clients with processing and rapid access to a variety of account information in various formats.
- Services are provided to financial institutions that issue MasterCard and VISA cards to cardholders (cardholder processing), as well as to

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financial institutions that make arrangements with merchants for acceptance of MasterCard or VISA cards as methods of payment (merchant processing).

As a cardholder processor, FDR also provides a variety of credit card-related services, including card embossing, transaction reporting, settlement and billing services, as well as certain security/fraud management services, for card-issuing financial institutions.

As a merchant processor, FDR authorizes transactions, enters data into its system, and provides settlement and related services for financial institutions with merchant relationships.

- Authorization services include authorizing a cardholder's purchase at the merchant location, either electronically or by voice, through an on-line authorization network.

- Data capture includes data collection and entry, based on transaction information provided by merchants to their banks and forwarded to FDR. Information is posted to the cardholder account if maintained by FDR; if not, the information is transmitted electronically through the MasterCard and VISA networks.

- FDR has recently expanded its merchant processing services to a bank customer to include merchant support services, such as customer service, chargeback processing, and collection activities.

- FDR is exploring the expansion of its merchant processing by acquiring certain merchant portfolios in cooperation with its bank customers.

As both a cardholder and merchant processor, FDR performs settlement between financial institutions by transferring funds, either directly or through the MasterCard and VISA networks. Funds transferred by FDR are reimbursed by the card-issuing financial institution on a daily basis. FDR also provides transaction reporting services generally consisting of daily financial reports and updated financial information.

Ancillary products and services provided to clients include a behavior scoring product, a computerized letter product, and a cardholder data base system.

FDR has NAS AS/9080 and IBM 3090-200 computers operating under MVS/XA installed at its data center in Omaha. A processing and service center is also located in San Mateo (CA).

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FDR's revenues consist primarily of fees payable under processing contracts. Pricing depends on the number of transactions processed rather than the dollar amount of each transaction. FDR 's processing services involve over 800 types of transactions that are separately priced and negotiated with clients.

First Data Resources, Ltd., headquartered in Basildon, provides credit card processing services in the U.K.

In September 1992, FDR purchased EFTEL, operator of the largest independent funds transfer network in Australia. EFTEL provides funds transfer, debit card, and automated teller machine services. Users of the network primarily include Australian credit unions, as well as Australian building societies and banks. The network services all principal Australian cities.

Health Systems Group (HSG):

HSG provides processing services and turnkey systems for financial and patient care applications to approximately 700 U.S. hospitals. Revenue from this unit has remained relatively flat over the past three years.

HSG currently offers the following services/systems:

- The Hospital Financial Control (HFC) system, is a distributed processing service currently used by over 450 hospitals.
  - HFC provides more than 30 modules and 4,000 reports including accounts payable and receivable, fixed assets, payroll, physician statistics, and third-party billing.
  - Data is transmitted via on-line terminals or PCs from the hospital to large-scale IBM processors at HFG's data center in Charlotte.
- The Patient Care System (PCS) is a Tandem-based distributed system that manages all patient information and recordkeeping, including patient admissions and registrations, test and procedure ordering, result reporting, historical recordkeeping, and nursing treatments. PCS is often used as a front-end to HFC. There are currently over 30 PCS installations.
- SAINT is an in-house system designed for small to medium-sized hospitals that provides integrated financial and patient care software modules in support of administrative, clinical, and data communications. Systems are installed at the clients' site and managed by HSG. SAINT systems are currently used by approximately 300 hospitals.

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- HSG Business Office Services, introduced in 1991, is a data management system designed to improve a hospital's cash flow through:
  - More effective collection of the self-pay portion of fees due from patients
  - More accurate and timely processing of claims submitted by the hospital to third party payors such as insurance companies, Medicare, and Medicaid.

As a result of the acquisition of Gerber Alley, HSG also provides The Precision Alternative®, an integrated health care information system, which serves medium to large-sized hospitals.

- The system runs on DEC VAX Series 4000, 6000, and 9000 and HP 3000 Series 900 computers.
- Modules are available for patient care, financial accounting, clinical, and decision support applications.
- There are currently about 100 Precision Alternative installations in the U.S. and other countries.

Cable Services Group (CSG):

CSG provides processing services and PC-based turnkey systems to the cable television industry. As of December 1992, CST serviced approximately 800 cable systems nationwide and on-line computer service providers having an aggregate of approximately 15.3 million cable subscribers.

Applications available through CSG include the following:

- Cable Control System, for on-line subscriber billing and information management
- CableMAX, a PC-based subscriber management system for smaller cable companies
- CompuLink, an advertising sales management tool
- Viewpoint, an on-line tool used to sort, analyze, combine, and organize information in an existing cable customer data base.

CSG usually enters into agreements with its cable television system clients for initial periods of no less than two years, with optional renewal periods selected by the client for periods of at least six months

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and as long as three years. Revenues consist primarily of customer fees paid monthly based on the number of cable subscribers, as well as fees for additional services that are billed on a per transaction basis.

In addition to its headquarters in Omaha, CSG has regional offices in Englewood (CO) and Lexington (KY) and a national sales force. CSG's data center is in Englewood.

During 1992, CSG's major telesales client, MCI Telecommunications, renewed its contract with CSG through December 1987.

During 1992, CSG and IBM Information Network (now Advantis) announced a multi-year contact whereby IBM would link more than 8,000 terminals in cable television companies nationwide to CSG's mainframe computer. Cable operators can use the network to respond to subscriber service or billing requests.

The Shareholder Services Group (TSSG):

TSSG provides mutual fund shareholder servicing and recordkeeping services to 35 client groups nationwide and is currently servicing 9.8 million shareholder accounts, compared to 8.7 million accounts at the end of 1991.

Services available through TSSG include:

- Transaction processing, including preparation and processing of incoming daily trades or maintenance items, and monitoring and controlling them by individual client-specific quality control departments to ensure compliance with corporate policy and regulatory requirements
- Reconciliation of internal bank accounts to facilitate cash settlements between the funds and shareholders
- Handling of telephone requests from existing and prospective shareholders and financial consultants
- Daily front-end and back-end verification of all trades

TSSG's data center is managed by IST.

Clients include Dreyfus, Shearson Lehman, Pioneer Funds, and Seligman Funds.

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Integrated Payment Systems (IPS):

IPS provides payment instrument transaction processing to financial institutions. It addition, IPS, through a network of selling agents, provides consumer funds transfer services, as well as payment instrument transaction processing, to retail customers.

These services involve the marketing and processing of the following types of payment instruments and services: American Express Money® Orders, American Express® Official Checks, and American Express® MoneyGram consumer funds transfer services.

- Official Checks are available at approximately 300 financial institution selling agents. Money orders and moneygram funds transfer services are available through a network of selling agents with approximately 54,500 sales outlets, including financial institutions and check cashing bureaus, selected supermarkets, convenience stores, packaging and postal outlets, and airport facilities. These outlets also include approximately 660 American Express TRS and representative offices.

- IPS manages these operations for American Express Travel Related Services (TRS).

- Payments to IPS from TRS for these services were approximately $124.8 million in 1992, compared to $100.7 million in 1991, and $66.5 million in 1990.

- IPS and TRS have agreed to phase out the trademarked products currently offered and IPS will begin to issue its own payment instruments under a new name during a five-year transition period.

IPS also provides cash management services for corporations and financial services institutions.

- IPS operates as an electronic clearinghouse to collect, concentrate, and disburse financial information. The electronic link provides customers with instant access to their investment funds and enables cash managers to analyze investments and take advantage of financial opportunities.

Integrated Marketing Services (IMS):

IMS' Marketing Information Services Division (MIS), formed in 1987, provides a variety of data base services used to enhance overall direct marketing programs.

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- FastData℠ is a joint service provided with Donnelley Marketing, Inc. (a division of Dun & Bradstreet). FastData provides on-line access to an up-to-date consumer information file (the Donnelley DQI data base) of over 90 million U.S. households and 9 million businesses. Services range from address verification, through in-depth household descriptions, to family and neighbor profiles including demographic information.

- Data base enhancement services provided include merge/purge, data appending, NCOA/Zip+4, and data base storage and maintenance.

The Teleservices Division of IMS provides long-distance call completion services to customers of inter-exchange carriers.

The Government Services Division provides transaction processing and telecommunications services to federal, state, and local government agencies.

- The division has developed an insurance verification system that provides on-line patient information to health care providers, and an electronic Medicaid eligibility verification system allowing provers to verify recipient eligibility prior to provision of Medicaid services.

- The division has a contract with the U.S. Postal Service to provide nine-digit (ZIP + 4) Zip Code information. This division initiated the National Change of Address service for first class mail through a non-exclusive license agreement with the U.S. Postal Service.

WATS Marketing (WATS):

WATS provides a range of inbound and outbound telemarketing services.

- The Inbound Division provides inbound telemarketing services to Fortune 500 companies and their direct response agencies, catalog marketers, publishers, and government agencies.

  - WATS Marketing manages programs for advertisers who use 800- and 900-numbers to offer products or information.

  - More than 1,500 trained telemarketing representatives are used to serve callers.

- The Outbound Division uses lists of current customers or self-targeted prospects to make calls to assist clients with lead qualification, direct sales, data collection and surveys, customer service, and account management. This division specializes in credit

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card acquisitions and warranty programs for manufacturers' products.

WATS major client, MCI Telecommunications, contributed 10.7% ($129 million) to FDC's total 1992 revenues.

CALL INTERACTIVE:

Formed in August 1989, CALL INTERACTIVE is a joint venture with AT&T that uses 800 and 900 telephone lines for direct sales, market research, contests, audience participation in broadcasts, and other applications.

Services include:

- AT&T's High Capacity Service for processing up to 10,000 calls in 90 seconds
- Instant data analysis of caller responses
- Call Limiting, which allows sponsors to limit the number of calls per day from any household
- Automated, high-volume order taking, recording, and transcription
- Live operator and customer service availability

Clients include Capital Cities/ABC, Inc., MTV Networks and V-H1, and Beatrice/Hunt-Wesson Foods.

AT&T has indicated that it wishes to withdraw from the joint venture. If this happens, FDC intends to continue the business of CALL INTERACTIVE itself.

Integrated Systems Technologies (IST):

IST currently manages the data processing operations of TSSG and The Boston Company pursuant to a facilities management agreement.

In September 1992, Shearson Lehman announced it had reached an agreement to sell The Boston Company to Mellon Bank. The agreement contemplates that IST will continue to manage The Boston Company's data processing operations for a period of at least three more years.

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Industry Markets

FDC's revenue is derived primarily from clients in banking and finance, retail, medical, and cable television, and direct marketers in various industries.

FDR clients include a variety of banks at both the regional and national levels and, in the U.S., savings and loan associations and credit unions participating in MasterCard, VIS, automated teller machine, and debit and calling card programs.

Health Systems Group serves approximately 700 acute care hospitals ranging in size from under 100 to more than 700 beds, and medical centers located throughout the U.S.

Cable Service Group clients include multiple cable system operators and cable programming providers.

Geographic Markets

Approximately 86% of FDC's 1992 revenue was derived from the U.S. and 14% from international sources. A two-year geographic financial summary follows:

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($ millions)

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Total	$265.5	100%	$221.6	100%

FDC is headquartered in New York and has a corporate office in Omaha.

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FDR is based in Omaha and maintains branch offices in Omaha, San Mateo (CA) and Lake Success (NY), and has a facility in Brighton (England).

IPS is headquartered in Englewood (CO).

IMS is based in Omaha.

WATS is based in Omaha.

HSG is based in Charlotte (NC).

TSSG is based in Boston and has additional facilities in Cleveland (OH) and Providence (RI).

CSG is based in Omaha and maintains branch offices in Lexington (KY) and Denver (CO).

IST is based in Medford (MA).

ACB and Anasazi are based in Phoenix (AZ).

Call Interactive is based in Omaha and has sales offices in New York and Los Angeles.

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Merged with ~~Acquired~~ ~~by~~ ADP Network Services

COMPANY HIGHLIGHT

FIRST DATA CORPORATION
40 Second Avenue
Waltham, MA 02154
(617) 890-6701

Perry Harris, President
Wholly owned subsidiary
of Automatic Data
Processing
Total employees: 140
Total revenues, fiscal year
end 3/31/76: $5.8 million

COMPANY BACKGROUND

- First Data Corporation (FDC) was created in June 1970 when Perry Harris, James Burley (VP Marketing), and David Fresan (VP Engineering) took over Codon Computer Utilities, an interactive services company owned by Codon Corp. They acquired a two year old company with approximately $5,000 per month in revenues and a DEC PDP/10 installed. FDC was acquired by ADP on April 20, 1977.

EN 4/25/77 agreement in principle. Compl late June. ADP stock worth $7.5m.

- FDC still provides interactive services in addition to remote and local batch processing and remote facilities management for its 500 users.

- A fire in April 1976, which started in another firm's offices, caused $3.5 million damage to FDC's computer facility. Since then, FDC has purchased its sole occupant building and created a fire proof computer room.

OVERALL ASSESSMENT

- No customers were lost as a result of the fire. A "super-human" effort put FDC back online only one day after the fire and at nearly full capacity after three weeks. However, it took nine, not the anticipated six, months to achieve full reliability again. This meant that FDC was unable to add new customers until early 1977.

- Despite the fire, net earnings in 1976 were $700,000, 12% of total revenues. Revenues increased from $4.1 million in 1975; FDC estimates revenues of $7.2 million in 1977 and over $10 million in 1978.

- FDC's major competitors are PDP/10-based companies such as Compu-Serv, Tymshare, and On-Line Systems.

KEY PRODUCTS AND SERVICES

- Eighty percent of FDC annual revenues are generated by its remote computing services. The majority of these revenues are derived from the data base software (IMARS and System 1022), and the financial modeling software (BBL).

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- IMARS enables the user to manage and selectively retrieve information from the data base. It is used for report generation; principally by the Federal Government.

- System 1022 is a general purpose data management system suitable for any application involving generation, storage, maintenance, or retrieval of information in medium to large data bases.

- BBL (Basic Business Language) is used for financial modeling, risk analysis, capital budgeting, business forecasts, and cash flow projections.

- FDC also offers FASTOCK, in part a history of securities pricing, volume, and dividend information.

- The remaining 20% of revenues is generated by local batch processing, remote facilities management (an on-site DEC System 10 performs cancer research for the National Institute of Health), communications optimization, mini- and microcomputer software development, and some software package sales.

  - FDC optimizes the configuration of communication networks costing more than $1 million per month, saving clients as much as 10% to 15% per month in telephone charges.

APPLICATIONS

- More than 50% of application revenues is generated by IMARS, System 1022, and BBL.

- Other revenues are primarily derived from scientific and engineering applications with a small percentage from Dial-A-Ride Management.

INDUSTRY MARKETS

- More than 50% of FDC revenues is generated by the federal government. The remainder are primarily from the distribution and manufacturing industries with a few banking and finance clients.

- The 20 largest users generate 50% of revenues. Twenty percent (100) of FDC's 500 users generate 80% of revenues. The remaining 400 users are small companies.

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GEOGRAPHIC MARKETS

- Ninety percent of FDC revenues is generated by clients along the eastern seaboard from New England to Washington, D.C. The remaining clients are located in Chicago, Los Angeles, and San Francisco primarily.
- FDC has branch offices in Chicago, Washington, D.C., and New York City.

COMPUTER HARDWARE AND SOFTWARE

- FDC has purchased five inhouse DEC System Ten mainframes, each with approximately 768K Core. Three process external user services, one performs inhouse development, and one handles communications.
- Two more DEC System Tens will be installed; one by June 1977, and one by fiscal year end 1978.
- The remote facilities management contract is run on a separate government-owned, DEC System Ten.
- FDC also has sixteen 200 megabyte disk packs and thirteen 100 megabyte disk packs.
- FDC utilizes the Telenet communications network and supports all ASCII-code terminals.

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April/1977

[illegible] SCHMIDT & ASSOCIATES, INC.
342 MADISON AVENUE
NEW YORK, NEW YORK 10017
(212) 682-9142

for AUTOMATIC DATA PROCESSING, INC.

FOR IMMEDIATE RELEASE

ADP TO ACQUIRE FIRST DATA CORP.

MAY 9 – 1977

CLIFTON, N. J., April 18, 1977 -- Automatic Data Processing, Inc. (NYSE) and First Data Corp. have reached an agreement in principle for ADP to acquire First Data, Frank R. Lautenberg, ADP president, announced today.

The acquisition will be for an exchange of shares of ADP common stock with a market value of $7.5 million. The contracts are expected to be signed shortly with the subsequent SEC filing and closing to take place as soon as practical thereafter.

First Data, with revenues in excess of $7 million annually and pre-tax earnings of approximately $1.1 million, is a remote access computing firm based in Waltham, Massachusetts.

"First Data represents an expansion of ADP's Network Services Division," Mr. Lautenberg said. "Boston will become the East Coast base for this segment of our business. ADP will then have major remote computing centers in Ann Arbor, Michigan and London, England, as well as the Boston area.

"We expect increased operating efficiencies to result from the combining of the skills and facilities of ADP's existing network with those of First Data. These three computer centers, all using compatible large scale equipment, will eventually be tied into one common international communications system. The resulting enlarged capabilities will offer significantly expanded opportunities for service in the remote access computing field. The management and staff of First Data is expected to continue and we look forward to their participation in the future development of this important division," Mr. Lautenberg said.

#A 77 4 18 W#

Automatic Data Processing Agrees to Buy First Data

CLIFTON, N.J. - Automatic Data Processing Inc. said it agreed in principle to acquire First Data Corp., Waltham, Mass., for $7.5 million in common stock.

Automatic Data Processing provides a variety of computer services. First Data offers remote computer services via communications lines and is to become the East Coast center in Automatic Data Processing's network for such services. Eventually, it's to be combined with Automatic Data Processing's remote-computing facilities in Ann Arbor, Mich., and London, England, to create an international system, Frank R. Lautenberg, president of Automatic Data processing, said.

First Data has annual pretax profit of about $1.1 million on revenue of more than $7 million, the companies said.

W.S.J. 4/15/77

FIRST DATA MANAGEMENT COMPANY, INC.
120 N. Robinson
P.O. Box 25189
Oklahoma City, OK 73125
(405) 232-6600

Gary D. Bunch, Chairman and President
Wholly Owned Subsidiary of First Data Management Holding Company
Total Employees: 316
Total Revenue, Fiscal Year End
12/31/86: $33,009,700
12/31/87: $49,000,000 (Proforma)*

THE COMPANY

- First Data Management Company, Inc. (FDMC) provides processing and electronic funds transfer (EFT) services to over 300 financial services institutions in Oklahoma, California, Colorado, Kansas, and Missouri. FDMC management believes it is the largest provider of these services to financial institutions in Oklahoma and the second largest provider of processing services to financial institutions in Colorado.

  - FDMC was formed in July 1983 when First Oklahoma Bancorporation, Inc. merged the operations of its First Data Management division and Service Card System Corporation (SCS) subsidiary.

    - First Data Management was formed in 1969 to provide processing services to First Oklahoma and its affiliates and correspondent banks, including The First National Bank and Trust Company of Oklahoma City.

    - SCS was formed in 1976 to provide EFT services through an ATM network.

  - FDMC operated as a wholly owned subsidiary of First Oklahoma until September 1983 when the company completed its initial public offering of 1.1 million shares of common stock, of which 525,000 shares were sold by First Oklahoma and 585,000 shares were newly issued. Subsequent to this initial offering First Oklahoma owned 68.4% of FDMC's common stock.

  - During 1985 First Oklahoma sold approximately two million shares of FDMC's common stock in a second public offering, reducing its ownership in FDMC to 15%.

  - Since its inception FDMC has provided processing and associated support services to First Oklahoma and its subsidiaries. These services accounted for 29%, 28%, and 30% of FDMC's total revenues for 1985, 1984, and 1983, respectively.

*Company estimate

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- In July 1986, FDMC's largest customer, First National Bank and Trust Company of Oklahoma City (a First Oklahoma subsidiary) was declared insolvent. The Federal Deposit Insurance Corporation (FDIC) was named receiver of the assets and liabilities and sold the bank's assets to a new bank formed by First Interstate Bancorp (First Interstate Bank of Oklahoma).

- In September 1986, FDMC signed a 12-month $11.5 million agreement to provide processing services to First Interstate Bank of Oklahoma until the new bank had converted to its own processing system.

- In December 1986, First Data Management Holding Company (FDMHC) purchased approximately 1.8 million shares (50.3%) of FDMC's common stock in a leveraged buyout for $18 million and indicated its intention to acquire the remaining FDMC common stock through a merger by exchanging debt securities having a fair market value of approximately $10 per share.

  - FDMHC is a newly formed Delaware corporation owned by Citicorp Venture Capital, Ltd., certain FDMC management, Central Bank, and Central Bank's parent, Central Banking Systems, Inc.

  - In January 1987, FDMC signed a seven-year agreement to provide processing services to Central Bank in fulfillment of a condition of the tender offer made by FDMHC.

  - Effective June 16, 1987, FDMC was merged into FDMHC and became a wholly owned subsidiary of FDMHC.

- FDMC's 1986 revenue was $33 million, a 9% decline from 1985 revenue of $36.2 million. Net losses were $2.8 million, compared to net income of $5.9 million for 1985. A five-year financial summary follows:

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FIRST DATA MANAGEMENT COMPANY, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

FISCAL YEAR / ITEM	1986	1985	1984	1983	1982
Revenue	$33,010	$36,217	$34,638	$29,043	$24,120
. Percent increase (decrease) from previous year	(9%)	5%	19%	20%	33%
Income (loss) before taxes	$ (3,610)	$ 5,811	$ 4,353	$ 3,561	$ 1,199
. Percent increase (decrease) from previous year	(162%)	33%	22%	197%	75%
Net income (loss)	$ (2,795)	$ 5,889	$ 3,086	$ 2,194	$ 1,520
. Percent increase (decrease) from previous year	(147%)	91%	41%	44%	97%
Earnings (loss) per share	$ (0.77)	$ 1.10	$ 0.80	$ 0.70	$ 0.51
. Percent increase (decrease) from previous year	(170%)	38%	14%	37%	96%

- FDMC management attributes revenue declines and net losses to the following:

  - During the latter part of 1985, management made a decision to change the delivery system of the FDMC products and services from a center using a courier delivery system to a fully electronic delivery system (ESCAPE 2000) using remote item capture and print capabilities. This decision required additional investment in computer equipment in order to obtain long-term customer contracts.

  - In the second quarter of 1986, FDMC received the unsolicited exchange offer from First Financial Management Corporation (FFMC), which contributed $1.7 million to 1986 general and administrative costs. Due to the uncertainty of the company's future operating environment as a result of the FFMC exchange offer, marketing efforts in obtaining long-term customer commitments for ESCAPE 2000 were delayed and consequently duplicate costs of maintaining both data processing delivery systems were incurred.

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- In July 1986, FDMC also lost its largest customer, The First National Bank and Trust Company of Oklahoma City, as previously mentioned.

- Research and development expenditures were approximately $4.6 million (14% of revenue) in 1986, $3.9 million (11% of revenue) in 1985, and $2.4 million (7% of revenue) in 1984.

- Revenue for the three months ending March 31, 1987 reached $12.2 million, a 51% increase over $8 million for the same period in 1986. Net income was $1.2 million, compared to net losses of $293,000 for the same period a year ago.

  - Central Bank, now FDMC's largest customer, and Central-related customers contributed approximately $3.9 million or 33% to FDMC's first quarter results.

  - FDMC management anticipates 1987 revenue will reach $49 million.

- As of December 31, 1986, FDMC had approximately 316 employees. As of April 30, 1987, subsequent to the agreement made with Central Bank, FDMC increased the number of its employees to 451.

- Major competitors include providers of in-house systems, predominantly IBM and NCR.

KEY PRODUCTS AND SERVICES

- One hundred percent of FDMC's 1986 revenue was derived from its various processing and EFT services. A further breakdown of source of revenue follows ($ millions):

FISCAL YEAR / ITEM	1986		1985		1984	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Bank processing	$26.2	79%	$29.2	81%	$27.8	80%
EFT services	6.8	21	7.0	19	6.8	20
Total	$33.0	100%	$36.2	100%	$34.6	100%

- FDMC provides processing and associated support services for deposit, loan, and financial accounting and management control applications primarily to commercial banks.

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- The target market for these services includes financial institutions ranging in size from approximately $20 million to $3 billion in assets.

- The majority of FDMC's processing service agreements have initial terms of one to five years which are automatically renewable for additional one-year periods unless either party gives six months prior written notice that it does not want to extend the agreement beyond the initial term or any additional period.

- Deposit systems offered by FDMC consist of demand deposit, savings, certificate of deposit, and overnight investment systems. All systems are linked to the customer information file which provides access to all the services utilized by a financial institution's customer. The demand deposit and savings systems are linked to an EFT network to permit current information to be made available through the network. These systems support in-bank check capture and transmission which provide a financial institution with greater control over its check processing. Regulatory, management, and customer reporting services are also provided.

- Lending systems include commercial loan, installment loan, preauthorized overdraft loan, mortgage loan, agriculture loan, credit analysis, and charge-off loan systems. Most systems allow the customer to analyze the profitability of its customers. These systems also provide a range of management, regulatory, and customer reporting information which may be produced on paper, microfiche, or display terminals.

- Financial accounting and management control systems include general ledger, fixed assets, inventory and purchasing control, account reconciliation, and various modeling and forecasting tools. The general ledger system provides cost accounting and budget facilities. Each of these systems provides accounting and management reports.

- Trust and stock transfer systems allow banks to perform trust accounting and management functions and to act as the stock transfer agent for their corporate customers.

- FDMC's services are offered through a network using FDMC's main data center together with ESCAPE 2000, the company's IBM System 36-based electronic delivery system. Data from checks is captured either at the customer's location or at FDMC's data center and noncheck information is entered via on-line terminals. These transactions are processed as received and reports are generated reflecting the day's operations. This information is also available via on-line terminals.

    - The ESCAPE 2000 system for in-bank item capture and printing offers a more efficient method of delivery for both the company and its customers. Due to cost advantages and efficiencies offered by this delivery system, FDMC believes it will be used

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by an increasing number of its existing and future customers. The use of this system has allowed FDMC to eliminate all of its remote data centers.

- FDMC's principal EFT service, the Service Card System (SCS), provides financial institutions with the hardware, software, data communications, and reconciliations necessary for the financial institution to offer a debit card service to its customers. This network services financial institutions, retail merchants, and consumers. In addition, the company offers automated clearinghouse capabilities.

  - FDMC's EFT fees are primarily derived from transaction fees generated by use of ATMs and POS terminals, equipment and teleprocessing fees, and, to a lesser extent, fees associated with maintenance and operation of the SCS network and fees generated by issuance or reissuance of debit cards. Each time an SCS cardholder uses a debit card, the FDMC receives a transaction fee. The amount of the transaction fee varies depending on whether the ATM used is owned by FDMC, a financial institution which is a customer of the company, or a third-party network. The company also derives revenue for processing a transaction by a participating interchange cardholder other than an SCS cardholder. Substantially all of the company's electronic funds transfer revenue has been derived from transactions occurring within Oklahoma.

  - The majority of FDMC's EFT service agreements are for a term of one year and are automatically renewable for succeeding one-year terms unless written notice of termination is received at least 90 days prior to the expiration of the one-year term.

  - FDMC has entered into regional and national interchange agreements with other financial institutions and retail establishments as follows:

    - During 1985, the company began to offer debit card access to its SCS network through CIRRUS, a national ATM network with approximately 2,800 participating institutions and 58 million cardholders.

    - Effective August 1, 1985, SCS cardholders were able to use ATMs located in Safeway grocery stores in Oklahoma.

    - In May 1985, the company entered into a switch agreement with Sears, Roebuck and Co. whereby SCS cardholders can make retail purchases at POS terminals at Phillips Petroleum Company service stations in Oklahoma using both the SCS and the Sears electronic funds networks.

    - During 1986 FDMC completed a statewide network sharing by making reciprocal agreements with Transfund® and ChecOkard® , electronic funds transfer systems offered by other financial institutions in Oklahoma.

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- During 1987 FDMC entered into an agreement with Sears, Roebuck and Co. whereby DISCOVER® credit cards can be used to obtain ATM cash advances within the SCS network.

- During 1987 FDMC entered into an agreement with TeleCheck whereby an SCS debit card can be used at POS terminals to make purchases and to receive cash advances.

INDUSTRY MARKETS

- One hundred percent of FDMC's 1986 revenue was derived from the banking and finance industry.
  - First Oklahoma and its subsidiaries contributed $4.6 million, $10.5 million, and $9.6 million to FDMC's 1986, 1985, and 1984 revenues, respectively.
- The company's current primary market consists of approximately 4,500 commercial banks in Oklahoma, California, Colorado, Texas, Missouri, and Kansas.
- The company's largest customer is Central Banking Systems, Inc.

GEOGRAPHIC MARKETS

- One hundred percent of FDMC's 1986 revenue was derived from the U.S., and specifically from Oklahoma, Colorado, Kansas, and Missouri.
- During 1987 FDMC added a California bank as a client. The company plans to expand into Texas, Arkansas, Louisiana, and New Mexico.
- Branch offices are located in Walnut Creek (CA), Dallas (TX), and Colorado Springs (CO).

COMPUTER HARDWARE AND SOFTWARE

- FDMC's main processing center is located in Oklahoma City and has an IBM 3090, operating under MVS, IMS, SNA installed.
- Clients access the data center via leased lines, dial-up lines, and switched network lines.
- FDMC is responsible for the operations of Central Bank's Concord (CA) data center. The center has two NAS mainframes operating under MVS, IMS, SNA.

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FIRST DATA RESOURCES INC.
7302 Pacific Street
Omaha, NE 68114-5497
(402) 399-7000

Edward C. Nafus, President
Unit of American Express Information Services Company
Total Employees: 4,500
Total Revenue, Fiscal Year End 12/31/89: $275,000,000*

*INPUT estimate

The Company

First Data Resources Inc. (FDR[R]), founded in 1971, is the world's leading third-party processor of credit and debit card transaction processing services.

FDR currently operates as a wholly owned subsidiary of American Express Information Services Company (ISC), which is one of four major operating units of American Express Company.

- During 1989, American Express reorganized FDR's information services businesses into separate groups within ISC. In addition to FDR, ISC units now include Health Systems Group, Shareholder Services Group, Integrated Payment Systems, WATS Marketing Group, and Cable Services Group.

INPUT estimates that FDR's 1989 proforma revenue from its credit and debit card transaction processing services was $275 million.

Acquisitions made by FDR include the following:

- In August 1988, FDR acquired Eastern States Bankcard Associates of Lake Success (NY). Terms of the acquisition were not disclosed.
  - Eastern States is an association that provides bank credit card processing services for VISA and Mastercard to Manufacturers Hanover Trust and about 100 other member banks.
  - Eastern States had approximately 950 employees at the time of the acquisition.

FDR's major competitors in the card processing area include Total Systems and Southern States Bankcard Association. Competitors

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in the authorization area include National Data Corporation and First Financial Management Corporation (NABANCO).

Key Products and Services

One hundred percent of FDR's 1989 revenue was derived from transaction processing and associated support services.

FDR provides a range of services for the management and automation of debit and credit card activities, including cardholder and merchant accounting, authorizations, and plastic card services.

- Transaction services are provided to more than 700 financial institutions.
- FDR annually processes over one billion transactions for 39 million cardholder accounts.
- FDR handles more than 326 million authorizations each year, using technology that includes:
    - Electronic Ticket Capture (ETC), a point-of-sale recording system.
    - Voice by phone.
    - Touch-tone telephone entry and computer-synthesized voice response (Audio Response Units).
    - Point-of-Sale (POS) from dial-up terminals and leased terminals via a network of access points.
    - Electronic cash register (CPU-to-CPU).
- FDR Security provides a nationwide investigation and fraud prevention system for card-issuing institutions in the U.S.
- CardShare Services, Inc. an FDR subsidiary, provides credit card registration, travel reservation services, and various insurance products to issuers that offer them to cardholders as benefits.
    - CardShare also offers insert/merchandising programs and other services, such as CardSecure credit card registry and a Discount Buying Service.

First Data Resources, Ltd., headquartered in London, provides credit card processing services in the U.K.

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FDR no longer provides reservation management services to airlines.

Industry Markets

One hundred percent of FDR's revenue is derived from the banking and finance industry.

Geographic Markets

The majority of FDR's 1989 revenue was derived from the U.S. A small percent is derived from U.K. operations.

The major portion of First Data Resource's centralized processing facilities is located in Omaha.

Processing and service centers are also located in Atlanta, Boston, San Mateo (CA), New York City (Long Island), and Brighton (U.K.).

Computer Hardware and Software

FDR has NAS AS/9080 and IBM 3090-200 computers operating under MVS/XA installed at its data center in Omaha.

Communications nodes and data transmission facilities are handled with 56 IBM Series I minicomputers.

The FDR system supports 66,000 electronic ticket capture terminals.

Clients may access FDR's services via WATS lines, leased lines, FDRnet (FDR's proprietary network), TYMNET, or Telenet.

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FIRST DATA RESOURCES INC.
7301 Pacific Street
Omaha, NE 68114-5497
(402) 399-7000

Henry C. Duques, President and CEO
Subsidiary of American Express Travel Related Services
Total Employees: 7,200
Total Revenue, Fiscal Year End 12/31/87: $350,000,000*
*INPUT estimate

The Company

First Data Resources Inc. (FDR[R]), founded in 1971, is one of the largest third-party processors of debit and credit card transactions in the U.S. The company also offers services in hospital and physician information systems, Medicaid eligibility verification networks, cash management, telemarketing, cable television billing, and third-party hardware maintenance.

FDR is a wholly owned subsidiary of American Express Travel Related Services (TRS), a division of American Express Company.

- In 1983, American Express TRS reduced its full ownership of the firm to a 75% interest when it sold 2.2 million shares of Class B stock to 34 key employees, and 4 million shares of common stock in an initial public offering for $56 million.
  - Proceeds from the Class B and common stock sales were used to repay debt incurred to pay a $58 million dividend to American Express TRS.
- In late 1985, American Express TRS repurchased the 25% interest in FDR it did not own for approximately $225 million ($38.25 a share).
  - According to American Express, the company made the decision to repurchase FDR because it believed processing had become more critical to its business in such areas as point-of-sales electronic services and telemarketing, and because it believed that the information processing industry is a fast-growth industry.

Acquisitions made by FDR include the following:

- In August 1988, FDR acquired Eastern States Bankcard Associates of Lake Success (NY). Terms of the acquisition were not disclosed.

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- Eastern States is an association that provides bank credit card processing services for VISA and Mastercard to Manufacturers Hanover Trust and about 100 other member banks.

- Eastern States had approximately 950 employees at the time of the acquisition.

- In September 1987, FDR purchased Specialty Services Group, Inc. (PA), a supplier of billing, office management and consulting services to hospitals, hospital-based physicians, and physician practice plans serving over one million patients in seven states. Terms of the transaction were not disclosed.

- In 1987, FDR acquired the banking services component of HDR Systems, Inc., a subsidiary of Centerra Corporation.

- In 1986, FDR acquired Systems Associates, Inc. (NC), a provider of turnkey systems for hospitals and custom programming and consulting services, for approximately $33.8 million.

  - Systems Associates had revenue of $32.9 million and approximately 350 employees for the fiscal year ending January 31, 1986.

  - Systems Associates now operates as a wholly owned subsidiary of FDR.

- In 1986, FDR acquired Ryder Financial and Communications Services (FCS) and Cashchek International Inc., both units of Ryder System, Inc. The terms of the acquisition were not disclosed.

  - FCS provides charge card, cash transfer, and communication services to the transportation market and also offers, through Cashchek International, cash transfer services to credit unions and resort hotels.

  - FCS is a part of FDR's Payment Products Division.

- In 1985, FDR's Field Service Division (CA) acquired Kalbro Corporation (NJ) to expand its existing field service base. Kalbro provides on-site maintenance and related engineering support to manufacturers, systems integrators, and end users of minicomputers and microcomputers.

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FDR has been active in third-party maintenance services since 1983 but is planning to phase out this aspect of its business by late 1988.

First Data Resources reports that it has measured a 40% average annual growth rate over the last 15 years. INPUT estimates that FDR's 1987 revenue was $350 million.

FDR has approximately 7,200 employees, with a technical staff consisting of 250 full-time systems and programming professionals. FDR's competitors by business segment include the following:

- Transaction Services: National Data Corporation, NABANCO, and Total Systems.
- Telemarketing Services: National Data Corporation and NICE Corporation.
- Cable System Services: Cable Data.
- Cash Management Services: National Data Corporation.
- Government Services: Electronic Data Systems, the U.S. Postal Service, and Medicare/New York.

Key Products and Services

INPUT estimates over 90% of FDR's 1987 revenue was derived from processing services and software sales and software licenses for its debit and credit card processing system. Less than 10% was derived from third-party maintenance services.

FDR provides various services in the following business areas:

- The Transactions Services Division provides a range of services for the management and automation of debit and credit card activities, including cardholder and merchant accounting, authorization, plastic card production, and security services.
  - Transactions services are provided to more than 600 clients throughout the U.S., ranging from financial institutions to airlines and retailers that issue their own cards.
  - FDR's system contains more than 26 million full-processing cardholder accounts. More than half a billion debit and credit card transactions are processed each year.
  - Transaction Services handles more than 220 million authorizations each year, using technology that includes:

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  - Electronic Ticket Capture (ETC), a point-of-sale recording system.
  - Voice by phone.
  - Touch-tone telephone entry and computer-synthesized voice response (Audio Response Units).
  - Point-of-Sale (POS) from dial-up terminals and leased terminals via a network of access points.
  - Electronic cash register (CPU-to-CPU).

- FDR Security provides a nationwide investigation and fraud prevention system for more than 300 card-issuing institutions in the U.S.

- Government Services provides Medicaid authorization services and provides nine-digit ZIP codes to the U.S. Postal Service (USPS) and commercial users via magnetic tapes, diskettes, and manual lists and through use of the 800 telephone number.

  - FDR operates a telecommunications network that gives USPS locations 24-hour access to FDR's ZIP+4 data base.

- Healthcare Services are provided through its subsidiaries:

  - Professional On-line Computers, Inc. (POLCI) offers computerized information management services for hospitals, physicians' clinics and HMOs. POLCI provides on-line management of patients' files, account billing and rebilling, practice analysis reports, appointment scheduling, accounting scheduling, accounting payroll insurance, and claims processing.

  - Systems Associates, Inc. supplies integrated hospital information systems, needs consulting, software, hardware, and 24-hour-a-day service support.

  - Specialty Services Group provides physician billing and reimbursement maximization management services on behalf of hospitals, physicians, and practice plans located in seven states.

- Cable Systems Services offers advanced management information and subscriber billing systems and services to the cable television industry.

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- FDR's Cable Control System provides cycle billing, on-line access to subscriber informaton and history, work order processing, scheduling, converter inventory control, addressability, pay-per-view support, collections, sales and marketing tools, and a reporting system that provides operational and financial information.

- FDR developed Micro Delivery Option (MDO), a microcomputer-based system, for the needs of cable systems with fewer than 20,000 subscribers.

• Cash Management Services offers an on-line system that enables clients within business and industry to collect and consolidate relevant financial and management information from their branch operations.

- This system provides a deposit detail for each group or location, as well as daily management reports.

- This system processes some 13 million transactions a year through voice, CPU-to-CPU, Audio Response Units, and POS terminals.

- Cashchek International provides an electronic money transfer service that allows consumers to gain access to cash based on VISA and MasterCard credit lines and American Expresss Gold and Platinum Cards.

- Cash management clients are guaranteed a computer up-time of 98.5% during peak transaction hours.

• Telemarketing Services are provided through WATS Marketing of America, Inc., which offers both inbound and outbound telemarketing programs.

• CardShare Services, Inc. an FDR subsidiary, provides credit card registration, travel reservation services, and various insurance products to issuers that offer them to cardholders as benefits.

- CardShare also offers insert/merchandising programs and other services, such as CardSecure credit card registry and a Discount Buying Service.

First Data Resources, Ltd., headquartered in London, provides credit card processing services in the U.K.

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FDR no longer provides reservation management services to airlines.

Hardware maintenance services are provided through FDR Field Service Company, PLANUS, and Kalbro.

Industry Markets

The majority of FDR's 1987 revenue was derived from the banking and finance industry. The remainder was derived from large corporations, the federal government, cable television companies, direct mailers, the health-care industry, the retail industry, and various businesses whose computer systems are maintained by FDR.

Geographic Markets

One hundred percent of FDR's 1987 revenue was derived from the U.S.

The major portion of First Data Resource's centralized processing facilities is located in Omaha.

Processing and service centers are also located in Atlanta; Boston; Los Angeles, San Mateo, and Santa Ana (CA); Denver; Nashville; and London.

Computer Hardware and Software

FDR has NAS AS/9080 and IBM 3090-200 computers operating under MVS/XA installed at its data center in Omaha.

Communications nodes and data transmission facilities are handled with 56 IBM Series I minicomputers.

The FDR system supports 50,000 point-of-sale terminals and 18,000 customer CRTs located across the U.S., including more than 420 terminals at United States Postal Service sites.

Clients may access FDR's services via WATS lines, leased lines, FDRnet (FDR's proprietary network), TYMNET, or Telenet.

- WATS lines are used to access voice authorization centers in Omaha, Boston, and Los Angeles, reservation management centers in Omaha and Jacksonville, cash management services, and inbound telemarketing services in Omaha.
- Leased lines are used for point-of-sale authorization services, cable services, all bank credit card customers, and the U.S. Post Offices.

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- FDRnet is used to access point-of-sale systems and authorization services.
- TYMNET and Telenet are used by clients to access bank-card systems.

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COMPANY PROFILE

FIRST DATA RESOURCES, INC.
10805 South Old Mill Road
Omaha, NE 68154
(402) 399-7000

P. E. Esping, Chairman and CEO
Robert E. Masterson, President
Public Corporation, OTC
Total Employees: 6,700
Total Revenue, Fiscal Year End:
1984: $203,001,000
Computer Services Revenue:
$182,700,000*

THE COMPANY

- First Data Resources Inc., founded in 1971, is the nation's largest third-party data processor of debit and credit card transactions, providing on-line data base information services to more than 650 banks across the U.S. The company also provides processing services for telemarketing, cash management, cable television, airline reservations, and nine-digit ZIP code addressing. During 1983, First Data expanded its services to include third-party hardware maintenance.

- In 1980 American Express Company purchased 80% of the capital stock of First Data for approximately $50 million and the remaining 20% was acquired over the next three years for an additional $30 million.

  - In 1983 American Express transferred all of its First Data shares and rights to American Express Travel Related Services Company (TRS Co.), a wholly owned subsidiary of American Express.

  - In June 1983 First Data was recapitalized and an amendment was adopted authorizing 65 million shares of common stock, 20 million shares of Class A stock, 3 million shares of Class B stock, and converting and exchanging the former capital stock to 18,760,000 shares of Class A stock.

  - During 1983 First Data paid TRS Co. a $58 million dividend, sold 2,240,000 shares of Class B stock to 34 key employees, and sold 4 million shares of common stock in an initial public offering for $56 million. Proceedings from Class B and common stock sales were used to repay debt incurred to pay the $58 million dividend to TRS Co.

  - As of December 31, 1984, TRS Co. owned 100% of First Data's outstanding Class A stock, representing approximately 75% of the company's capital stock and approximately 96% of the voting power.

*INPUT estimate

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- 1984 revenue reached $203 million, a 37% increase over 1983 revenue of $148.6 million. Net income rose 31%, from $20.6 million in 1983 to $27 million in 1984. A five-year financial summary follows:

FIRST DATA RESOURCES INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1984	1983	1982	1981	1980
Revenue	$203,001	$148,564	$115,969	$83,401	$54,470
. Percent increase from previous year	37%	28%	39%	53%	7%
Income before taxes	$ 51,328	$39,169	$ 29,454	$23,558	$ N/A
. Percent increase from previous year	31%	33%	25%	N/A	N/A
Net income	$ 27,007	$ 20,613	$ 16,046	$12,810	$ 6,137
. Percent increase from previous year	31%	28%	25%	109%	54%
Earnings per share	$ 1.08	$ 0.88	$ 0.71	$ 0.56	$ 0.27
. Percent increase from previous year	23%	24%	27%	107%	80%

- Approximately 35% of the increase in 1984 revenue was attributed to the company's principal product, Transaction Services, mainly through increased credit card transactions brought about by an improved economy. The remainder of the increase was attributed to growth in each of the company's newer product lines.

- Research and development expenditures were approximately $6 million (3% of revenue) in 1984, $5 million (3% of revenue) in 1983, and $3.7 million (3% of revenue) in 1982.

- Acquisitions made by First Data over the past two years include the following:

  - In September 1984 First Data acquired KMP Computer Systems of Los Alamos (NM) for approximately $250,000.

    . KMP provided cable television subscriber billing services for smaller cable companies.

    . KMP had approximately five employees and annual revenue of approximately $600,000 at the time of the acquisition.

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- On July 3, 1984, First Data acquired the field service operations of ATV Systems, Inc. of Santa Ana (CA) for $8.7 million.
  - ATV develops, manufactures, and markets microprocessor-based point-of-sale and multi-function office information systems.
  - In accordance with the July 1984 agreement, First Data has agreed to perform the repair and maintenance service that ATV was required by contract to provide to purchasers of ATV equipment.
  - The field service operations of ATV had approximately 400 employees at the time of the acquisition and annual revenue of approximately $18 million.
  - Based on an evaluation of the acquired operations, First Data has subsequently recognized a $5.7 million reduction in the value of certain receivables and intangibles and believes it is entitled to a refund of a portion of the purchase price. ATV has filed suit against First Data. The matter is pending.
  - These operations have been merged into FDR Field Service Company, a wholly owned subsidiary of First Data.
- On November 30, 1983, First Data purchased 100% of the issued and outstanding common stock of INDESERV Inc. of Littleton (MA) for $1.6 million in cash to be paid over approximately two years plus additional payments of not more than $2.7 million based on INDESERV's net income during the four-year period beginning January 1, 1984.
  - INDESERV, in operation since 1974, is a network of independent service companies providing nationwide field maintenance of data processing and communications equipment.
  - INDESERV had approximately $2.5 million in revenue at the time of the acquisition.
  - INDESERV now operates as a wholly owned subsidiary of First Data as part of FDR Field Service Company.

- Revenue for the three months ending March 31, 1985 was $63.4 million, a 52% increase over $41.8 million for the same period in 1984. Net income rose 41%, from $6.6 million to $9.3 million.
- First Data is currently organized into seven business areas as follows:
  - Transaction Services provides a range of services for the management and automation of debit and credit card activities, including cardholder and merchant account services, credit authorization, embossing, and security services.

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- Telemarketing Services provides business customers a nationwide telephone marketing and information service via WATS Marketing of America, Inc.

- Cable System Services provides data collection and reporting services for cable television franchise operators.

- Cash Management Services provides cash and information reporting services primarily for customers with operations at remote locations.

- Transportation System Services provides telephone reservation processing services for People Express Airlines.

- Government Services provides nine-digit ZIP Code data for the U.S. Postal Service and updating of mail lists for commercial customers, as well as Medicaid authorization services.

- FDR Field Services Company provides maintenance services from 60 offices nationwide serving nearly 9,000 customer locations.

- PLANUS, formed in 1984 as a division of FDR Field Services Company, provides personal computer maintenance services through its retail stores located in Omaha (NE), Burlington (MA), and Costa Mesa (CA).

- First Data currently has approximately 6,700 full- and part-time employees. Of these, approximately 4,600 are located in Omaha and are segmented as follows:

Marketing/sales	250
Customer support	3,400
Research and development/ computer operations	420
Field service	380
General and administrative	150
	4,600

  - The remaining 2,100 employees are located in branch offices throughout the U.S. to provide marketing, sales, and customer support services.

- First Data's competitors by business segment, include the following:

  - Transaction Services: National Data Corporation, NABANCO, and various credit card associations.

  - Telemarketing Services: National Data Corporation and NICE Corporation.

  - Cable System Services: Cable Data.

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- Cash Management Services: National Data Corporation.
- Transportation System Services: J. C. Penney.
- Government Services: Electronic Data Systems.
- Field Services: Sorbus and TRW.

KEY PRODUCTS AND SERVICES

- Virtually 100% of First Data's 1984 revenue was derived from processing services. Less than 1% was derived from foreign software licenses for its debit and credit card processing system.
- Approximately 66% of 1984 revenue was derived from Transaction Services, 11% from Telemarketing Services, and 20% from the remaining business segments. Interest income represented 3% of revenue. A two-year summary of source of revenue, as estimated by INPUT, follows ($ millions):

	1984		1983	
	Revenue	Percent of Total	Revenue	Percent of Total
Transaction Services	$134.0	66%	$118.7	80%
Telemarketing Services	21.7	11	19.0	13
Cable System Services	8.5	4	4.1	3
Cash Management Services	4.5	2	2.5	2
Transportation System Services	5.5	3	-	-
Government Services	8.5	4	1.5	-
Field Services	15.0	7	0.1	-
Interest	5.3	3	2.8	2
Total	$203.0	100%	$148.6	100%

- Transaction Services provides services associated with credit and debit card processing, including cardholder and merchant accounting, credit authorization, embossing, and security services.
  - First Data generally contracts to provide card-related services to its customers for initial terms of four years, with optional renewals by the customers for two years thereafter. These agreements fix various price schedules for the initial term and, depending on the particular services required, may incorporate the passing on to the customer of specified increased operating costs, yearly price increases, and minimum yearly aggregate transaction fees.
  - The services are marketed primarily to financial institutions that issue MasterCard and VISA cards and to bankcard associations composed of

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banks that have joined together to facilitate entry into the card market. Transaction services are also provided to airlines and, through banks, to retailers that issue credit cards.

- As of December 31, 1984, the company had service agreements with over 630 banks and four bankcard associations. First Data currently has service agreements with over 650 banks and six associations representing over 100 banks. Association clients include the New England Bankcard Association (NEBA) in Boston, the Southeast Bankcard Association (SEBA) in Atlanta, Mid-America Bankcard Association (MABA) in Omaha, the Mountain States Bankcard Association (MSBA) in Denver, the Western States Bankcard Association (WSBA) in San Francisco, and the Bankcard Association of Rhode Island (BARI) in Providence.

- Through agency relationships between banks, First Data provides services to approximately 3,000 additional financial institutions.

- First Data has contracts with United, Western, and PSA Airlines for airline credit card processing services. Oil company clients include Kerr-McGee.

- Card processing services include data collection and entry, credit card billing, merchant accounting, and statement preparation and mailling. During 1984 First Data processed approximately 503 million card transactions and serviced more than 22 million accounts for its customers, compared to 445 million card transactions and services for more than 19 million accounts during 1983.

  - Debit and credit card transaction records are deposited by merchants in banks and forwarded to one of First Data's branches in Omaha, Boston, Atlanta, or San Mateo (CA) for data entry and balancing.

  - The information is posted to the cardholder account (if maintained by First Data) or (if the account is not maintained by First Data) is transmitted electronically through the VISA or MasterCard network to the bank which maintains the cardholder account.

  - Cardholder transactions are also posted daily to accounts maintained by First Data with data received through the VISA and MasterCard network.

  - First Data prepares daily financial settlements for its customers and provides general ledger accounting input to each customer's accounting system.

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- Updated account information is available daily both on-line through remote terminals and through hard copy.

- First Data's authorization services provide banks and merchants with an on-line credit authorization network for MasterCard and VISA cards. During 1984 the company handled more than 91 million authorization inquiries, a 40% increase over the 65 million in 1983. Authorization services are provided through voice, audio response, terminals, and electronic cash registers.

  - Approximately 40% of the inquiries are handled by voice authorization through centers in Omaha, Boston, and Los Angeles that are staffed 24 hours a day, seven days a week. Merchants throughout the U.S. access these centers via WATS telephone lines. Voice authorization fees generally range from $0.60 to $0.70 per inquiry.

  - Approximately 20-30% of the inquiries are handled by audio response. Merchants enter their inquiries via a touch-touch telephone and receive a computer synthesized speech response from First Data's Omaha data center. Audio response fees generally range from $0.25 to $0.50 per inquiry.

  - Point-of-sale authorizations are available through terminals that access First Data's Omaha data center via leased lines or direct-dial. Fees range from $0.10 to $0.25 per inquiry.

  - CPU to CPU authorizations involve inquiries initiated at the merchant's electronic cash registers, through the merchant's computer to First Data's Omaha data center via leased lines. These authorization services are currently provided to over 50 clients nationwide. Fees generally range from $0.05 to $0.08 per inquiry.

- Card Services provides for the storing, embossing, and mailing of various types of plastic cards for a variety of industries.

  - During 1984 over 24 million cards were embossed and encoded (a 29% increase over 1983) including MasterCard and VISA cards, automated teller machine cards, debit cards, and plastic cards for direct marketing solicitation programs.

  - First Data was involved in the development of the laser-imaged micrographic health care card marketed under the name QuiKare by a large midwestern hospital. The card carries personalized medical history information.

- Securities Services functions primarily in the area of bank cards, although the services are also provided to customers in other card-issuing industries. Services include:

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  - Receiving and processing notifications from card issuers and cardholders regarding lost or stolen cards. During 1984, 640,000 such phone calls were handled, a 20% increase over 1983.

  - Making preliminary investigations of transactions made or attempted with lost or stolen cards.

  - Investigating fraudulent transactions via 18 locations nationwide.

- During 1984 First Data expanded its services to include wholesale check guarantee services on its existing authorization network. Clients include Telecredit and Telecheck (McDonnell Douglas Information Systems Group).

- Telemarketing Services, accounting for nearly 11% of 1984 revenue, provides telephone marketing services through WATS Marketing of America, Inc., a wholly owned subsidiary. WATS Marketing was acquired by First Data in 1980.

  - The 1984 volume of transactions was 14.5 million, compared to 12.4 million in 1983.

  - Using toll-free telephone lines, WATS marketing provides "inbound" and "outbound" services.

    - Inbound services involve the receipt, on behalf of WATS Marketing customers, of telephone inquiries and merchandise orders from consumers responding to television commercials, printed advertising, direct mail, catalog offerings, and other marketing campaigns conducted by those customers. Inbound production capacity was increased by about 50% during 1984. Up to 250,000 incoming one-minute phone calls a day, seven days a week, can be processed.

    - Outbound services involve calls by WATS Marketing operators, on behalf of business customers, to generate and verify sales, raise funds, conduct market research, renew subscriptions, and conduct other merchandising programs. During 1984 as many as two million outbound calls were generated for a single client. Outbound production capacity doubled during 1984.

  - Inbound services are handled in Omaha. Outbound services are provided through Omaha and Lincoln (NE).

  - Clients include AT&T, R. J. Ryenolds Tobacco Company, and Proctor & Gamble.

  - First Data Management expects Telemarketing Services to grow approximately 25% during 1985.

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- Cable System Services, accounting for 4% of 1984 revenue, provides cable television management information and subscriber billing processing services and subscriber billing software for microcomputers.
  - During 1984 services were provided to more than 150 cable systems representing more than 2.5 million subscribers, compared to cable systems representing 1.5 million subscribers in 1983.
  - First Data usually enters into written agreements with its cable television system customers for initial periods of two or three years, with optional renewal periods selected by the customer for periods of at least six months and as long as three years.
  - Processing services include:
    - Subscriber billing through cycle management, with descriptive statements that include individual itemizations and pay-per-view breakdowns by date and time.
    - Centralized payment processing.
    - On-line subscriber inquiry, including collection data.
    - On-line data base management, including work order monitoring, scheduling, and dispatching fucntions.
    - Consolidated management reporting for financial, operational, and sales/marketing control.
  - Clients include cable systems ranging in size from 1,000 to 180,000 customers, as well as Multiple System Operators (MSOs). MSO clients include Group W Cable, Warner Amex Cable Communications, Tele-Communications, Inc., Cox Cable Communications, Continental Cablevision, and American Cablesystems.
  - With the acquisition of KMP Computer Systems in 1984, First Data has expanded its offerings to incude subscriber billing software for microcomputers under the name "Micro Delivery Option" and "Cablestar."
    - The products are targeted to cable systems with 200 to 20,000 subscribers.
    - The software runs on IBM microcomputers and ranges in price from $2,500 to $30,000.
    - Features include billing and information management.
- Cash Management Services, generating an estimated 2% of 1984 revenue, provides cash concentration services under the name CashData™ for organizations with multiple locations.

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- More than six million transactions were handled in 1984, a 50% increase over 1983.

- Cash management services are marketed both to banks (which incorporate First Data's services as a part of the bank's overall service) and directly to large corporations.

- First Data generally contracts to provide these services for initial terms of one year with optional renewal terms of one year.

- Cash control features include the following:

  . Local branch managers report their daily local bank deposits and operating statistics to First Data via a toll-free telephone number.

  . First Data accumulates the reported amounts from the various branches and reports the aggregate to the client's designated concentration bank, permitting the customer to consolidate funds via wire transfer for overnight investing.

  . In 1984 First Data introduced an Audio Response Service permitting customers to report deposit data using a touch-tone telephone.

- Information reporting features include the following:

  . Prior day reports and detailed activity documentation.

  . Sales and operating data, balance and inventory reports, and accounts payable and receivable.

  . Customized reports by specific operation, area, and type of customer, as well as other variables.

- First Data management states that its Cash Management Services are growing 40% to 50% a year.

• Transportation System Services, established during 1984, generated an estimated 3% of 1984 revenue. This group provides telephone airline reservation services for People Airlines, Inc.

- Facilities in Omaha and Jacksonville receive telephone requests from individuals and travel agencies regarding arrival and departure times for flights scheduled by People Express, the costs of such flights, seat availability, and reservations. Operators respond to the requests by accessing People Express' on-line reservation system in Newark (NJ).

- There are currently over 465 reservation operator positions in Omaha and approximately 350 positions in Jacksonville.

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- Government Services, contributing an estimated 4% to 1984 revenue, primarily provides nine-digit ZIP Code (ZIP+4) information to the public through a contract with the U.S. Postal Service.

  - The volume of ZIP+4 transactions in 1984 was 24.9 million, compared to 4 million in 1983. Inquiries are expected to reach 60 million in 1985.

  - First Data provides ZIP+4 information via toll-free telephone lines to the U.S. Postal Service and private mailers.

  - During 1984 First Data installed terminals at 120 postal sites to provide 24-hour on-line access to the central ZIP+4 directory in Omaha which contains over 23 million addresses. This network is expected to expand to 200 sites in 1985.

  - First Data also provides commercial customers with mail list updating services, including conversion to ZIP+4, address corrections, and standardization of format and style to U.S. Postal Service guidelines.

  - First Data plans to expand its services to other governmental agencies at the federal and state level.

    - First Data is currently working with several states to produce an on-line computerized verification system to reduce Medicaid fraud using its card processing and on-line authorization capabilities.

    - Other government activities involving other card-based large-volume transactions are also being researched.

- Hardware maintenance services, contributing an estimated 7% of 1984 revenue, are provided as follows:

  - FDR Field Service Company provides on-site maintenance services nationwide and includes the operations of INDESERV and ATV Service Corporation.

  - PLANUS operates three retail stores from which it sells personal computer maintenance (depot repair) service agreements to individuals and businesses.

INDUSTRY MARKETS

- Approximately 60% of First Data's 1984 revenue was derived from the banking and finance industry and 20% from the retail industry. The remaining 20% was derived from large corporations, the federal government, cable television companies, direct mailers, the medical industry, People Express Airlines, and various businesses whose computers and peripherals are maintained by First Data.

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GEOGRAPHIC MARKETS

- One hundred percent of First Data's 1984 revenue was derived from the U.S.
- Branch offices are located in Atlanta, Boston, Los Angeles, and San Mateo (CA).
- Field maintenance services are provided from 60 locations nationwide. PLANUS retail stores are located in Omaha, Burlington (MA), and Costa Mesa (CA).

COMPUTER HARDWARE AND SOFTWARE

- First Data has a NAS AS/9080 and a NAS AS/90000-DPC, operating under MVS/SP installed at its data center in Omaha.
  - The company uses approximately 10,000 terminals, of which approximately 1,800 are remote terminals located in branch offices.
  - Approximately 37 IBM Series minicomputers are used at branch offices and at the data center to collect data and transfer it to the NAS mainframes.
- Clients may access First Data's services via WATS lines, leased lines, FDRnet (First Data's proprietary network), TYMNET, or Telenet.
  - WATS lines are used to access voice authorization centers in Omaha, Boston, and Los Angeles, airline reservation centers in Omaha and Jacksonville, cash management services, and inbound telemarketing services in Omaha.
  - Leased lines are used for point-of-sale authorization services, cable services, and all bank credit card customers and the U.S. Post Offices.
  - FDRnet is used to access point-of-sale systems and authorization services.
  - TYMNET and Telenet are used by clients to access bankcard systems.

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Bob Ramey

COMPANY HIGHLIGHT

FIRST DATA RESOURCES INC.
7301 Pacific Street
Omaha, NE 68114
(402) 399-3950

Bob Masterson, President
Subsidiary of American Express
Total Employees: 2,100
Total Revenues, Fiscal Year End 12/31/80: $50 million*

THE COMPANY

- First Data Resources (FDR) was formed as a private corporation in 1971 to provide credit card processing services and to market a software package for a total bank card processing system. The company was a spin-off of the Mid-America Bankcard Association. In January 1980, American Express acquired FDR for about $50 million in cash (payable over a four-year period) and contingencies based on future earnings.

- FDR is one of three units of the Financial Institution Services Division of American Express, headed by Bill Esping former president and now Chairman of FDR. The other two operating units are Payment Systems Inc. and the Money Order Division.

- FDR's revenues for the last three years are estimated by INPUT as follows:

	1980	1979	1978
		($ millions)	
- Total revenues	$50	$46	$40

Data base enhancement activities

- In December 1980, FDR acquired WATS Marketing of America based in Omaha. WATS is the third or fourth largest company providing 800 number telephone marketing services.

- FDR is the largest credit card processing services vendor in the U.S. Other firms competing in this market are Tymshare Transaction Services and National Data Corporation.

- The 2,100 employees of FDR include part-time personnel hired during seasonal peaks (Christmas and summer months).

KEY PRODUCTS AND SERVICES

- Almost 100% of FDR's revenues are derived from services associated with credit and debit card processing (including credit authorization) and cash

* INPUT estimate

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management. A relatively minor portion of its revenues comes from foreign sales of its bank card software.

- FDR's services are divided into the following functional areas:

  - Bank card processing which consists of processing VISA and Master Card accounts.
  - Private label credit card processing for retail establishments.
  - Airline credit card processing.
  - Cash management services.
  - Authorization and security services for the approval of credit transactions for merchants.
  - Complete credit card embossing services.
  - Proven Products Division which handles merchandising offers mailed with statements.
  - FDR Insurance Division which offers various insurance products for credit card holders.

- In 1980, FDR enhanced its credit authorization services and announced its entry into providing cash management services.

  - The new authorization capability is an audio response system that returns answers to authorization requests made via regular telephone lines. It supplements two other authorization methods provided by FDR:

    . Traditional voice authorization.
    . TINET or Datatrol point-of-sale terminals with keyboards, card readers and LED displays.

  - FDR's cash management services include a deposit reporting system designed to report and consolidate multiple deposits, made by corporations in various locations, into a central bank. Information reporting is also provided.

- In March 1981, FDR won the facilities management contract to supply bank card processing services for the New England Bankcard Association in Boston. FDR has similar facilities management contracts with the Mid-America Bankcard Association (Omaha), Southeast Bankcard Association (Atlanta) and Mountain States Bankcard Association (Denver). Additionally, contracts are held with United and Western Airlines for airline credit card processing services.

- Clients and processing volume of FDR include:

  - 280 card issuing institutions, including private label.
  - 3,800 agent (bank) affiliates.
  - In excess of 11 million credit and debit card accounts.
  - 500,000 merchants for authorization services.
  - An annual processing volume of 275 million tickets.

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- FDR's full range of credit card services include:
  - Data entry.
  - Cardholder merchant and bank accounting.
  - Statement preparation.
  - Bank settlement.
  - System maintenance and enhancement.
  - Security functions.
  - Credit authorizations.
  - Complete mail distribution services.
  - Embossing and encoding functions.

INDUSTRY MARKETS Approximately 99% of FDR's revenues are derived from the banking industry and 1% from transportation (airlines).

GEOGRAPHIC MARKETS FDR has customers in 44 states. Offices are located in Atlanta, Denver, San Mateo (CA), Omaha and Boston.

COMPUTER HARDWARE

- In 1980, FDR completed the transfer and consolidation of three former data centers (San Mateo, Denver and Atlanta) into one data center in Omaha. Processing for the New England Bankcard Association will eventually be consolidated in Omaha.
- An Amdahl V6 and a V8, both operating under MVS, are installed in Omaha.

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Bob Raney
Dir. of Mktg

COMPANY HIGHLIGHT

FIRST DATA RESOURCES INC.
7301 Pacific Street
Omaha, NE 68114
(402) 399-3950

Bill Esping, President and Chairman
Private Corporation
Employees: 1,800
Total Revenues, Fiscal Year End 12/31/78: $40 million *

THE COMPANY

- First Data Resources (FDR) was formed as a private corporation in 1971 primarily to provide credit card processing services and to market a software package for a total bank card processing system. The company was a spin off of the Mid American Bankcard Association which was formed in 1968 to provide credit card processing to member banks only.

- FDR is currently the largest independent credit card processing services vendor in the U.S. Other computer services firms competing in this market are Tymshare and National Data Corporation in Atlanta.

- INPUT estimates FDR's 1978 revenues were approximately $40 million.

- Over 75% of the company's 1,800 employees are devoted to providing data entry, authorization services, and clerical activities in support of credit card processing.

KEY PRODUCTS AND SERVICES

- Almost 100% of FDR's revenues are derived from services associated with credit card processing. Foreign sales of software products contribute a relatively minor portion of total revenues.

- Until 1977, the bank card software package was sold domestically. After this time, FDR concentrated its efforts on providing a complete service in the U.S. for the processing and authorization of credit cards.

  - FDR sold 26 packages to principal banks in the U.S. from 1972 to 1976. International sales currently total 11.
  - The system operates on IBM 370/135 and larger machines under OS, OS/VS, DOS, DOS/VS, or OS/VSI. FDR does not maintain or upgrade the software at the present time. Price of the software is $150,000.

* INPUT estimate

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- FDR's services are divided into seven functional areas:

  - Bank card processing which consists of processing VISA and Master Charge accounts.
  - Private label credit card processing for retail establishments.
  - Airline credit card processing.
  - Authorization and security services for the approval of credit transactions for merchants.
  - Complete credit card embossing services.
  - Proven Products Division which handles merchandising offers mailed with statements.
  - FDR Insurance Division which offers various insurance products for credit card holders.

- FDR currently has facilities management contracts to provide bank card processing for the Mid American Bankcard Association (Omaha), Southeast Bankcard Association (Atlanta), and Mountain States Bankcard Association (Denver). Airline credit card processing contracts are held with United, Continental, and Western Airlines. The following statistics apply to the total processing volume of FDR:

  - 150 card issuing institutions, including private label.
  - 3,500 agent (bank) affiliates.
  - In excess of 9 million accounts.
  - 500,000 merchants for authorization services.
  - 275 million tickets processed annually.

- A full range of credit card services are furnished to clients including data entry; cardholder merchant and bank accounting; statement preparation; bank settlement; system maintenance and enhancement; security functions; credit authorizations; complete distribution (mail services); embossing and encoding functions.

INDUSTRY MARKETS Approximately 98% of FDR's revenues are derived from the banking industry and 2% from transportation.

GEOGRAPHIC MARKETS FDR currently has customers in forty-one states. The majority of clients are concentrated in the Mid-West, Southeast, Mountain, and Pacific Regions.

COMPUTER HARDWARE FDR's four data centers and hardware configuration follows:

- Omaha: Amdahl V6 and IBM 370/165.
- Atlanta: IBM 370/158 and a 370/155.
- Denver: IBM 370/145.
- San Mateo, CA: IBM 370/155 and a 370/145.

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FIRST FINANCIAL MANAGEMENT CORPORATION

3 Corporate Square
Suite 700
Atlanta, GA 30329
Phone: (404) 321-0120
Fax: (404) 633-2412

Chairman, President, and CEO:	Patrick H. Thomas
Status:	Public Corporation
Stock Exchange:	NYSE
Total Employees:	11,500 (3/93)
Total Revenue:	$1,404,710,000
Fiscal Year End:	12/31/92

Key Points

- First Financial Management Corporation (FFMC) is committed to providing a range of information processing services to support consumer and commercial transactions.
- During 1992, FFMC made the decision to divest itself of three businesses that were no longer strategic to the direction of the company--Georgia Federal Bank; First Family Financial Services, a regional consumer finance company; and Basis Information Technologies, a provider of processing services to over 1,000 financial institutions.
- The company's primary focus for each of its divestitures was to strengthen FFMC's balance sheet. With the completion of these transactions, FFMC has converted approximately $240 million in intangibles and received almost $500 million in cash and marketing securities which will be used to pay down debt and reinvest in core businesses.
- FFMC remains committed to an aggressive acquisition program in order to expand market share, enter new markets, and add management and technical depth. During 1992, FFMC acquired a leading health care management services company, a check guarantee and verification services company, and other businesses in merchant credit card processing and software.
- During 1992, NaBANCO, FFMC's merchant credit card processing subsidiary, further expanded into regional and local markets by opening 24 sales offices throughout the U.S. NaBANCO is also pursuing credit card business internationally by initiating Canadian processing for those U.S. clients with Canadian operations.

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Company Description

FFMC, founded in 1971, provides a range of processing services--including merchant credit card authorization, processing, and settlement; check guarantee and verification; debt collection and accounts receivable management; data imaging; micrographics and electronic data base management; medical claims processing and integrated health care management; and development and marketing of data communications and information processing systems.

- FFMC services a large and diverse institutional customer base that services the consumer: merchants, restaurants, hotels, manufacturers, wholesalers, financial institutions, insurance companies, hospitals and physicians, utilities, and various national, state, and local government agencies.

- Services are currently provided to over 220,000 customers through a distribution network of 410,000 on-line devices and 180 business units throughout the U.S. Canada, and the Caribbean.

FFMC currently conducts its operations in three areas as follows:

- Merchant Services: This unit, with over 3,600 employees, provides information services through NaBANCO (merchant credit card processing), TeleCheck (check guarantee and verification services), Nationwide Credit (debt collection and accounts receivable management services), and MicroBilt (data communications and information processing systems). Merchant Services supports over 205,000 customers through 46 locations and had revenue of $841 million in 1992.

- Data Imaging Services: This group, with 3,300 employees, consists of the operations of First Image Management Company and its four divisions. Services include computer output micrographics, electronic laser printing, microfilm, micropublishing, high- and low-speed data capture, direct-mail marketing services, and data base management systems. This group has over 12,000 customers and produced revenue of $222 million in 1992.

- Health Care Services: This group, with 3,900 employees, consists of the operations of FIRST HEALTH Services (formerly The Computer Company) and FIRST HEALTH Strategies (formerly ALTA Health Strategies). Services include Medicaid claims processing, pharmaceutical claims processing, third-party administration, psychiatric and chemical dependency managed care, utilization review, provider networks, and data analysis. This group has over 1,700 customers and 1992 revenue of $214 million.

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Strategy

The core foundation of FFMC is based on a commitment to decentralized management within a corporate environment, emphasizing autonomy, accountability, and decision-making at the operating level, and centralized policy, strategic planning, and control set and managed at the corporate level.

FFMC's corporate strategy is to increase shareholder value through earnings per share growth, improved return on equity, and economies of scale in operations; and to expand market share through strategic and tactical acquisitions and internal growth.

Financials

FFMC's revenue from continuing operations reached $1.4 billion in 1992, a 36% increase over $1.0 billion for 1991.

- Income from continuing operations before taxes declined to $61.9 million in 1992 but includes a loss of $79.6 million related to the write-down of the carrying value of Basis Information Technologies' net assets prior to its sale in 1993.

- In the five-year financial summary on the following page, discontinued operations include the results of Georgia Federal Bank and First Family Financial Services:

The 36% increase in revenue from continuing operations in 1992 over 1991 was due to business acquisitions and revenue expansion within existing businesses.

- The merchant credit card processing area benefited from an increase in retail activity during the 1992 holiday season in the fourth quarter.

- Health care services experienced increased claims processing volume and received several new long-term contracts with government agencies and became fully operational on several other processing contracts.

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FIRST FINANCIAL MANAGEMENT CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	1992	1991	1990	1989	1988
Revenue from continuing operations	$1,404.7	$1,036.1	$816.3	$606.7	$447.3
· Percent increase from previous year	36%	27%	35%	36%	N/A
Revenue from discontinued operations	$184.5	$173.9	$162.6	$92.0	N/A
Income from continuing operations before taxes	$61.9 (a)	$100.1	$79.2	$69.3	$556.7
· Percent increase (decrease) from previous year	(38%)	26%	14%	22%	N/A
Income from discontinued operations	$36.9	$30.7	$25.2	$16.2	N/A
Net income	$45.8 (b)	$89.0	$72.9	$56.8	$34.5
· Percent increase (decrease) from previous year	(49%	22%	28%	65%	140%
Earnings per share from continuing operations	$0.27	$1.17	$1.10	$1.01	$1.13
Net earning per share (c)	$0.79	$1.79	$1.67	$1.43	$1.13

(a) Includes $79.6 million loss from write-downs associated with Basis Information Technologies.

(b) Includes a net loss of $6.8 million from the sale of Georgia Federal Bank and First Family.

(c) Exclusive of the Basis charge and the loss on sales of discontinued operations, total earnings per share would have been $2.03, up 13%, without the benefit of earnings attributed to First Family for two months.

A three-year summary of source of revenue by business segment is estimated as follows:

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FIRST FINANCIAL MANAGEMENT CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1992		1991		1990	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Merchant Services	$841	60%	$683	66%	$504	62%
Data Imaging Services	222	16%	200	19%	150	18%
Health Care Services	214	15%	69	7%	55	7%
Basis Information Technologies (a)	114	8%	82	8%	105	13%
Other	14	1%	2	--	2	--
TOTAL	**$1,405**	**100%**	**$1,036**	**100%**	**$816**	**100%**

(a) Sold in February 1993.

Revenue from continuing operations for the three months ending March 31, 1993 reached $343.5 million, a 26% increase over $272.1 million for the same period in 1992. Income from continuing operations for the quarter increased 54% to $20.6 million, up from $13.4 million for the first quarter of 1992.

Acquisitions

During the past 20 years, FFMC has integrated well over 70 acquisitions.

Acquisitions made during 1992 include the following:

- FFMC purchased the National Westminster Bank merchant portfolio and Barclay's Bank merchant portfolio was converted to NaBANCO.

- In July 1992, FFMC purchased TeleCheck Services, Inc. from McDonnell Douglas Corporation and TeleCheck's principal franchisee, Payment Services Company, for $156.1 million in cash and stock.

  - TeleCheck and Payment Services, with 1,160 employees and 1991 revenue of $105 million, provide check verification and guarantee services to the retail industry.

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- The operations of TeleCheck and Payment Services have been combined, with executive offices in Houston. TeleCheck now operates as a wholly owned subsidiary of FFMC within its Merchant Services segment.

· In October 1992, FFMC acquired COIN Banking Systems, Inc. of Norcross (GA).

- COIN Banking, with 50 employees and annual revenue of $4 million, provides PC/LAN-based application software to the financial industry for consumer and commercial lending, bank card operations, and retail credit approval.

- COIN Banking now operates as a subsidiary of FFMC's MicroBilt unit.

· In January 1993, FFMC acquired Techpoint, Inc. of Livonia (MI).

- Techpoint, with 70 employees, provides retail point-of-sale systems.

- The acquisition enables FFMC's MicroBilt subsidiary to further expand its retail automation system capabilities and products for markets such as specialty retailers, department stores, home centers, and general merchandise retailers with multiple operating system platforms, including DOS, OS/2, and UNIX.

· In April 1992, FFMC acquired ALTA Health Strategies of Salt Lake City (UT) for $112.5 million in cash and stock.

- ALTA, with 2,760 employees and 1991 revenue of $142 million, is one of the nation's largest processors of private sector health care claims.

- ALTA now operates as FIRST HEALTH Strategies within FFMC's Health Care Services segment.

· During 1992, FFMC also acquired SUMMIT Information Systems and American Data Services, two financial services processing firms which were merged into FFMC's Basis Information Technologies unit, which was sold to FIserv in February 1993.

During 1991 FFMC made nine acquisitions, including the merchant credit card portfolios of four of First American Bancshares Corporation's affiliated banks; the merchant credit card portfolios of CFC Financial Services, Inc. and State Street Banks and Trust Co.; the COM businesses of TRW Inc. (Sacramento, CA), Kalvar Corporation, and COM Service Corporation (Chicago, IL); Laser Print America

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(imaging services); Midwest Benefits Corporation (health care third-party administration processing), and Gamma Micro-Systems Ltd. (software for restaurant point-of-sale systems).

During 1990, information services businesses acquired by FFMC included Electro Data Corporation (credit card authorization and settlement services to hotels and resorts), OnLine Financial Communication Systems (PC integration software), Nationwide Credit (debt collection and accounts receivable management services), Zytron Corporation COM and other data imaging services), Post-Tron Systems Corporation (integrated POS systems for specialty retailers), certain assets of Chilton Data Services, and the merchant credit card portfolios of Bank of Boston, Bank of New York, and Southeast Bank of Florida.

Divestitures

In February 1993, FFMC completed the sale of Basis Information Technologies to FIserv Inc. for $96.5 million in cash and FIserv stock. Basis, with approximately 980 employees and 1992 revenue of $113.8 million, provides processing services to more than 1,000 financial institutions in 36 states.

In November 1992, FFMC completed the sale of First Family Financial Services, a wholly owned consumer finance subsidiary of Georgia Federal Bank, to Associates Corporation of North America (a unit of Ford Motor Company) for $248 million.

FFMC has completed the sale of Georgia Federal Bank to First Union Corporation for $269 million.

- Georgia Federal was originally acquired by FFMC in 1989 specifically to protect its merchant credit card business and to provide direct access to the payment system.

- During 1992, FFMC developed alternative measures to protect its franchise, including the formation of a credit card bank, First Financial Bank. Georgia Federal was then no longer strategic to FFMC's corporate direction.

Alliances

FFMC, through its various operating units, has a number of alliances, including the following:

- MicroBilt is an NEC Original Equipment Manufacturer and an IBM Business Partner.

- FIRST HEALTH has a strategic alliance with HealthCare Compare.

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Employees

As of December 31, 1992, FFMC had 12,600 employees. The company currently has 11,500 employees.

Competitors

FFMC's competitors generally vary by regional area. Major competitors to FFMC, by product/service area, include the following:

- Data imaging services: Anacomp
- Credit card services: National Processing Co., CES, and National Data Corporation
- Check verification: National Data Corporation and Telecredit
- Medical processing: Electronic Data Systems, Blue Cross/Blue Shield, Aetna, and Crawford & Co.

Key Products and Services

INPUT estimates over 97% of FFMC's 1992 revenue was derived from its various processing services and the remainder from integrated systems provided by MicroBilt.

Merchant Services:

NaBANCO, a wholly owned subsidiary of FFMC, is the largest full service third-party provider of merchant credit card authorization, processing, and settlement services in the U.S. Services are provided to over 129,000 merchant customers at over 200,000 locations throughout the U.S., the Caribbean, and Canada.

- Processing centers are in Sunrise (FL) and Melville (NY). NaBANCO also maintains a customer service office in Denver (CO) servicing primarily its hotel and resort clients. These operations support electronic cash registers and dial up point-of-sale authorizations and draft capture terminals.
- At NaBanco, major emphasis has been placed on expanding further into the regional and local account marketplace. During 1992, a regional sales program was established and 24 sales offices throughout the U.S. were opened.
- Merchants served range from large, multilocation retailers to one-location specialty stores, restaurant and hotel chains, mail order companies, government/utilities, car rental agencies, and financial institutions. Clients also include fast food chains, theaters, and supermarkets.

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- NaBANCO processed over $42 billion in total merchant credit card transactions in 1992, compared to $33 billion in 1991, $24 billion in 1990, $17 billion in 1989, and $12 billion in 1988. Over 95% of the transactions settled by NaBANCO are performed electronically.

- Fees for credit card services are based on the dollar volume of transactions processed.

- Services added during 1992 include the following:

  - The SurePay™ credit card system that provides chargebackless processing to the merchant. The SurePay Terminal and Printer accesses the NaBANCO operating system directly and eliminates procedural chargebacks. The system features electronic signature capture and both magnetic stripe and embossed number reading capabilities.

  - NaBANCO is using the extensive check verification data base of TeleCheck to promote Chek*It℠, NaBANCO's check verification product.

  - Trac*It℠ is a PC-based electronic tracking and filing system for retrieval and chargeback requests for on-site client use.

- Gateway switching to major check guarantee services (JBS and Telecredit), check authorization, and debit card support are also available to NaBANCO customers.

- NaBANCO also offers specialized services such as cash consolidation and specialty data capture applications, property management credit card interfaces for hotel and restaurant chains, and on-line address verification for mail order merchants.

TeleCheck is one of the world's largest check acceptance companies with nearly 30 years experience.

- Services include check guarantee, check verification, credit collection, and new bank account screening.

- TeleCheck operates a worldwide system with offices in 78 cities.

- During 1992, TeleCheck served approximately 100,000 retailers and financial institutions worldwide handling over $15 billion in check approvals, compared to $9.2 billion in check approvals in 1991.

MicroBilt markets and supports integrated intelligent data communications systems designed for applications requiring two-way

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communication between a central office and large numbers of geographically dispersed locations.

- Systems are available for credit verification, electronic forms processing (health care), message broadcast and electronic forms communications (wholesale industry), transportation, retail, convenience stores, and restaurant chains.

- MicroBilt manages over 40,000 systems for more than 20,000 customers nationwide.

- During 1992 MicroBilt became an NEC OEM distributor, integrating the NEC Personal Computer line into its product offerings. MicroBilt is also an IBM Business Partner.

- Clients include Discover Card and Ryder.

Nationwide Credit provides a range of customized debt collection and accounts-receivable management services to financial institutions, retailers, government agencies, and health care providers through seven collection offices located throughout the U.S.

- Operations are conducted through three divisions--Government Services, Banking and Retail, and Financial Health Services

- Fees charged to customers are generally based on the dollar amount of funds collected.

Data Imaging Services:

Through First Image Management Company, FFMC provides data imaging services and data base services through 98 locations across the U.S. to over 12,000 customers.

Computer output micrographics (COM) services are provided nationwide through centers located in 23 states.

- Micrographics equipment--including microfiche and microfilm readers, reader/printers, microfilm cameras, and related supplies--are also sold to COM customers.

- During 1992, First Image was awarded an exclusive national contract to provide COM services for NationsBank.

- FASTFICHE, released in 1992, is an imaging service that combines the best attributes of magnetic, optical disk, and microfiche in a service bureau environment.

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FDX, the print and mail division, provides the design, creation, and management of documents such as invoices, account statements, and collection letters and distributes them to 10 million consumers and organizations every month.

The Data Input Division (formerly Appalachian Computer Services), is a separate division of First Image with approximately 1,800 employees.

- The division provides data base design, entry, and management; image conversion; and systems operations services for approximately 1,000 customers through 17 locations nationwide.

- During 1992, this unit was awarded a contract to provide data entry of all credit card applications for the new GM Card.

The Demand Publishing division maintains documents on-line for customers and prints them on demand. The unit has contracts with Xerox Customer Education and McDonald Douglas Technical Publications.

Health Care Services:

FIRST HEALTH Services Corporation provides transaction processing services for Medicaid programs in eight states and Washington, D.C. and processes pharmaceutical claims for private and public third-party payers.

- Central to FIRST HEALTH's processing business is its Medicaid Management Information System (MMIS), which has been certified by the federal government. MMIS can also be used in other industries.

- FIRST HEALTH has been a fiscal agent in the Medicaid System for 20 years, and processes approximately 136 million Medicaid claims worth more nearly $12 billion in payments each year. These services are provided on a contractual basis, generally with terms of three years or more.

- FIRST HEALTH processes 19 million pharmaceutical claims annually.

  - The company provides services on one of the largest government pharmaceutical claims-processing contracts in the nation, the Pharmaceutical Assistance Contract for the Elderly (PACE) for the state of Pennsylvania.

  - During 1992, FFMC was awarded a contract to administer the State of Maryland's Medicaid drug claim benefit through an on-

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line, POS claims processing and prospective drug utilization review system.

- During 1992, FIRST HEALTH also implemented a similar state-wide system for Blue Cross/Blue Shield of North Carolina, and integrated drug claims processing from Alta Health Strategies into the Richmond data center.

- In addition, state-wide retrospective drug utilization review contracts in Michigan, Kansas, Maryland, and North Carolina were added.

FIRST HEALTH Strategies, formed with the acquisition of ALTA Health Strategies in 1992, is one of the nation's largest processors of private sector health care claims.

- FIRST HEALTH Strategies provides a range of health care management services, including claims administration, utilization review, provider networks, insurance brokerage, and data analysis and reporting.

- Services are principally marketed to employers with self-funded group health benefit plans or employers with insured plans that are seeking health care management alternatives.

FFMC sells and leases equipment for use in conjunction with its various processing services. Equipment marketed by FFMC includes teller terminals, electronic point-of-sale terminals, microcomputers (primarily IBM and Unisys), CRTs, printers, in-bank MICR capture devices, peripherals, and ATMs.

Industry Markets

INPUT estimates that of FFMC's $1.4 billion in information services revenue, approximately 60% ($841 million) was derived from retailers/merchants, 15% ($214 million) from health care/Medicaid, 16% ($222 million) from cross-industry data imaging applications, 8% ($114 million) from financial institutions, and the remaining 1% from other industries.

Credit card services are marketed to large multilocation retailers, mail order companies, and restaurant and hotel chains.

Data imaging services are marketed to large commercial clients, as well as to nonprofit organizations and other direct-mail fundraisers.

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Geographic Markets

The majority of FFMC's 1992 revenue was derived from the U.S. The company also has clients in the Caribbean and Canada.

FFMC currently operates data centers and branch offices in all 50 states.

- First Image Management Company has 98 data centers nationwide.
- FIRST HEALTH operates 12 data centers.
- Merchant Services has data centers in Sunrise (FL) and Melville (NY).

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FIRST FINANCIAL MANAGEMENT CORPORATION
3 Corporate Square
Suite 700
Atlanta, GA 30329
(404) 321-0120

Patrick H. Thomas, Chairman, President, and CEO
Public Corporation, NYSE
Total Employees: 9,181 (12/90)
Total Revenue, Fiscal Year End 12/31/90: $925,103,000
Information Services Revenue: $786,663,000

The Company

First Financial Management Corporation (FFMC), founded in 1971, provides a range of processing services--including financial institution processing, data imaging, micrographics, medical claims servicing, and merchant credit card authorization, processing, and settlement.

- FFMC also operates Georgia Federal Bank, the largest savings institution in Georgia and First Family Financial Services, a regional consumer finance company.
- Services are currently provided to over 165,000 commercial and government customers and 430,000 consumers.
- FFMC management believes its company is one of the largest providers of processing services to financial institutions in the U.S.

In July 1991, FFMC completed a public offering of over 4.3 million shares of its common stock. Net proceeds of $145 million will be used for general corporate purposes, including acquisitions and debt reduction.

Since 1983, FFMC has completed 50 acquisitions representing annualized revenues of $950 million.

- To date, during 1991 FFMC has made nine acquisitions, including the merchant credit card portfolios of four of First American Bancshares Corporation's affiliated banks; the merchant credit card portfolios of CFC Financial Services, Inc. and State Street Banks and Trust Co.; the COM businesses of TRW Inc. (Sacramento, CA), Kalvar Corporation, and COM Service Corporation (Chicago, IL); Laser Print America (imaging services); Midwest Benefits Corporation (health care

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third-party administration processing), and Gamma Micro-Systems Ltd. (software for restaurant point-of-sale systems).

- During 1990, information services businesses acquired by FFMC included Electro Data Corporation, OnLine Financial Communication Systems, Nationwide Credit, Zytron Corporation, the operating assets of Post-Tron Systems Corporation, certain assets of Chilton Data Services, and the merchant credit card portfolios of Bank of Boston, Bank of New York, and Southeast Bank of Florida.

- FFMC's consumer finance operations were also expanded during 1990 with the acquisition of the Finance South consumer loan portfolio.

FFMC's total 1990 revenue reached $925.1 million, a 39% increase over 1989 revenue of $666.7 million. Net income rose 28%, from $56.8 million in 1989 to $72.9 million in 1990. A five-year financial summary follows:

FIRST FINANCIAL MANAGEMENT CORPORATION
FIVE-YEAR FINANCIAL SUMMARY*
($ millions, except per share data)

	FISCAL YEAR					
ITEM	1990	1989	1988	1987	1986	CAGR
Revenue	$925.1	$666.7	$427.6	$177.1	$74.4	88%
· Percent increase from previous year	39%	56%	141%	138%	41%	
Income before taxes	$119.0	$92.8	$56.7	$23.7	$12.5	76%
· Percent increase from previous year	28%	64%	139%	90%	65%	
· Gross margin	13%	14%	13%	13%	17%	
Net income	$72.9	$56.8	$34.5	$14.4	$7.3	78%
· Percent increase from previous year	28%	65%	140%	97%	51%	
· Net margin	8%	9%	8%	8%	10%	
Earnings per share	$2.50	$2.15	$1.69	$1.08	$0.67	39%
· Percent increase from previous year	16%	27%	56%	61%	29%	

* *Results prior to 1989 have been restated to reflect the pooling-of-interests acquisition of MicroBilt Corporation in 1989.*

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FFMC's 1990 acquisitions accounted for approximately 27% of the revenue growth. Internal marketing efforts and core business growth (including acquisitions completed in prior years) accounted for the remainder.

Revenues for the nine months ending September 30, 1991 reached $830.2 million, a 28% increase over $648.6 million for the same period in 1990. Net income increased 34%, from $46.1 million to $61.8 million.

Information services acquisitions made during 1990 include the following:

- In October 1990, FFMC acquired Post-Tron Systems Corporation. Post-Tron specializes in integrated point-of-sale systems for the specialty retail industry. Its operations have been merged into MicroBilt.

- In August 1990, FFMC acquired Zytron Corporation from Dun & Bradstreet Corporation for approximately $85.9 million in cash.

  - Zytron, with estimated annual revenues at the time of the acquisition of approximately $75 million, is a leading provider of computer output micrographics (COM) and other data imaging services.

  - The operations of Zytron have been merged with Endata into FFMC's First Image Management Company. Appalachian Computer Services has since been made a division of First Image.

- In June 1990, FFMC acquired Nationwide Credit, Inc. of Atlanta (GA) for $58.6 million in cash and stock.

  - Nationwide Credit, founded in 1968, provides debt collection and accounts-receivable management services to the federal government and its agencies and health care, retail, and financial services firms through 14 collection offices in the U.S. Nationwide annually processes about $1.3 billion in accounts receivables placed by customers.

  - Nationwide Credit now operates as a wholly owned subsidiary of FFMC's Information Services business segment.

- In May 1990, FFMC acquired Electro Data Corporation of Denver (CO), a $14 million firm that provides credit card authorization and settlement services to the luxury hotel and

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resort industry. The operations of Electro Data have been merged into FFMC's NaBANCO subsidiary within the Information Services business segment.

- In May 1990, FFMC acquired OnLine Financial Communications Systems. OnLine specializes in software that integrates PC workstations in multiple locations. These operations have been merged into FFMC's MicroBilt subsidiary.

- During 1990, FFMC also expanded the operations of its NaBANCO subsidiary with the purchase of three credit card processing portfolios of Southeast Bank of Florida, Bank of New York, and Bank of Boston.

FFMC currently conducts its operations in two areas--Financial Services, which includes the operations of Georgia Federal Bank and its subsidiaries, and Information Services, which includes the following lines of business:

- Financial Institution Services: Basis Information Technologies, Inc. (Basis), with 850 employees, provides processing services to over 1,000 financial institutions in 41 states. Basis had 1990 revenues of $100 million.

- Data Imaging Services: This group, with 3,300 employees, consists of the operations of First Image Management Company (formed with the merger of Endata and Zytron) and Appalachian Computer Services (ACS), which operates as a division of First Image. Services include computer output micrographics, electronic laser printing, microfilm, micropublishing, high- and low-speed data capture, direct-mail marketing services, and data base management systems. This group has over 12,000 customers and produced revenue of $142 million in 1990.

- Health Care Services: The Computer Company, with 1,100 employees, provides Medicaid claims processing, pharmaceutical claims processing, and third-party administration processing services through 12 centers to over 1,100 customers. The Computer Company's 1990 revenue was over $55 million.

- Merchant Services, with over 1,900 employees, provides information services through NaBANCO (merchant credit card processing), Nationwide Credit (debt collection and accounts receivable management services), and MicroBilt (integrated systems for retail, wholesale, credit verification, and health care

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markets). Merchant Services supports over 150,000 customers through 22 locations and had revenues of over $490 million in 1990.

A three-year financial summary by business segment follows:

FIRST FINANCIAL MANAGEMENT CORPORATION
THREE-YEAR FINANCIAL SUMMARY
($ millions)

	FISCAL YEAR					
	1990		1989		1988	
ITEM	$	PERCENT OF TOTAL	$	PERCENT OF TOTAL	$	PERCENT OF TOTAL
Revenue						
Information Services	$786.6	88%	$584.9	88%	$426.9	100%
Financial Services	162.6	18%	92.0	14%	--	--
Corporate	(24.1)	(3%)	(10.2)	(2%)	0.7	--
TOTAL	**$925.1**	**100%**	**$666.7**	**100%**	**$427.6**	**100%**
Income before taxes						
Information Services	$114.7	96%	$90.5	98%	$71.2	125%
Financial Services	45.9	39%	25.5	27%	--	--
Corporate	(41.7)	(35%)	(23.2)	(25%)	(14.5)	(25%)
TOTAL	**$118.9**	**100%**	**$92.8**	**100%**	**$56.7**	**100%**

Merchant Services revenue increased 51% during 1990 due primarily to the growth in merchant credit card processing volume.

- Acquisitions accounted for 25% of the revenue increase. The remainder of the increase was due to internal marketing efforts and growth of existing customers.

- Profit margins improved to 14% in 1990, compared to 12% in 1989 because of revenue growth and FFMC's decision to significantly expand its processing capacity in 1989

FFMC's other Information Services units had a combined revenue increase of 14% in 1990, primarily as a result of acquisitions.

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- Growth was offset by the planned deconversion in late 1989 of FFMC's former parent, which was acquired in 1986 by First Union Corporation of Georgia, and by customer attrition due to consolidation of data centers.

- The decline in profitability was attributed to the decline in financial institution data processing fees (primarily from First Union Corporation of Georgia). Profit margins did improve progressively from quarter to quarter during 1990 as the result of the consolidation of data centers during the year.

As of December 31, 1990, FFMC had 9,181 employees. The company currently has 9190 employees, including 7,199 in Information Services and 1,889 in Financial Services.

FFMC's competitors generally vary by regional area. Major competitors to FFMC, by product/service area, include the following:

- Financial institution processing:
  - Bank services: Electronic Data Systems and Systematics
  - Thrift services: FIserv and Gesco
  - Mortgage services: CPI and Lomas & Nettleton
- Data imaging services: Anacomp
- Credit card services: National Processing Co., Citicorp, and National Data Corporation
- Medical processing: Electronic Data Systems and Unisys

Key Products and Services

Approximately $787 million of FFMC's total 1990 revenue was derived from information services provided through the company's Information Services operations. Approximately 96% of information services was derived from various processing services and 4% from integrated systems provided by MicroBilt.

Financial Institution Services:

Basis provides processing services to over 1,000 customers in 41 states through seven host and eight remote data centers.

- Clients include banks, mortgage servicers, thrift institutions, and credit unions, ranging in size from newly chartered institutions to

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institutions with up to $4.7 billion in assets. To date, most of Basis' customers have been community banks and thrifts that have assets of less than $1 billion.

- Bank applications include deposits, loans, financial accounting, credit card processing, EFT, and mortgage origination and servicing.

- Basis operates three proprietary ATM networks and provides communications links to 35 national or regional nonproprietary ATM networks.

- Financial processing services generally have multiyear contracts of three- to five-year initial terms. Fees are based on the number of transactions handled and accounts maintained for each service, subject to minimum monthly charges.

- The percent of total FFMC revenue contributed by processing for financial institutions was 11% in 1990, 19% in 1989, and 32% in 1988.

- Basis continues to implement its strategy of consolidating the data processing centers that serve financial institution customers. During 1990, FFMC closed nine data centers. As of December 31, 1990, FFMC had 17 data centers serving financial institutions; seven are host centers.

Data Imaging Services:

FFMC provides data imaging services and data base services to over 12,000 customers through the following units:

- First Image Management Company provides computer output micrographics (COM) services nationwide through centers located in 23 states.

  - Micrographics equipment--including microfiche and microfilm readers, reader/printers, microfilm cameras, and related supplies--are also sold to COM customers.

  - Large-volume custom laser-printing services are provided to major commercial and nonprofit organizations through seven locations.

  - Customers include financial services, manufacturing, utilities, government agencies, educational institutions, and defense contractors.

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- Appalachian Computer Services (ACS), a separate division of First Image with approximately 1,800 employees, provides data base design, entry, and management; image conversion; and systems operations services for approximately 1,000 customers through 17 locations nationwide.

  - Direct-mail marketing services (formerly provided through Endata) include consulting; design of direct-mail marketing programs; statistical analysis; procurement of names; artwork and copy; extraction of computer-based file information; electronic printing of direct mail materials; and lettershop services. These services are provided to direct-mail fundraisers nationwide.

  - The U.S. Immigration and Naturalization Services is a major customer of ACS.

Health Care Services:

The Computer Company, acquired during 1989, provides transaction processing services for Medicaid programs in eight states and Washington, D.C. and processes pharmaceutical claims for private and public third-party payers.

- Central to The Computer Company's processing business is its Medicaid Management Information System (MMIS), which has been certified by the federal government. MMIS can also be used in other industries.

- The Computer Company has been a fiscal agent in the Medicaid System for 18 years, and processes approximately 91 million Medicaid claims worth more than $9 billion in payments each year. These services are provided on a contractual basis, generally with terms of three years or more.

- The Computer Company processes 19 million pharmaceutical claims annually. The company provides services on one of the largest government pharmaceutical claims-processing contracts in the nation, the Pharmaceutical Assistance Contract for the Elderly (PACE) for the state of Pennsylvania.

- The Computer Company provides its services to over 1,100 customers through 12 processing centers.

Merchant Services:

NaBANCO, a wholly owned subsidiary of FFMC, provides third-party credit card authorization, processing, and settlement services

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to approximately 98,000 merchant customers at over 200,000 locations throughout the U.S. and the Caribbean. Credit card processing fees contributed 47%, 45%, and 49% to FFMC's total revenue in 1990, 1989, and 1988 respectively.

- Merchants served range from large, multilocation retailers to one-location specialty stores, restaurant and hotel chains, mail order companies, government/utilities, car rental agencies, and financial institutions. Clients also include fast food chains, theaters, and supermarkets.

- Annual credit card volume reached $24 billion in 1990, up from $17 billion in 1989 and $12 billion in 1988. Over 95% of the transactions settled by NaBANCO are done electronically.

- Fees for credit card services are based on the dollar volume of transactions processed.

- Gateway switching to major check guarantee services (JBS, Telecredit, and Telecheck), check authorization, and debit card support are also available to NaBANCO customers.

- NaBANCO also offers specialized services such as cash consolidation and specialty data capture applications, property management credit card interfaces for hotel and restaurant chains, and on-line address verification for mail order merchants.

MicroBilt markets and supports integrated intelligent data communications systems designed for applications requiring two-way communication between a central office and large numbers of geographically dispersed locations.

- Systems are available for credit verification, electronic forms processing (health care), message broadcast and electronic forms communications (wholesale industry), transportation, retail, convenience stores, and restaurant chains.

- MicroBilt manages over 40,000 systems for more than 20,000 customers nationwide.

- In October 1990, MicroBilt was awarded a contract by Ryder Truck Rental, Inc. to provide a total system for Ryder to automate its 4,500 independent truck rental dealers nationwide.

Nationwide Credit provides a range of customized debt collection and accounts-receivable management services to financial institutions, retailers, government agencies, and health care providers.

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FFMC sells and leases equipment for use in conjunction with its various processing services. Equipment marketed by FFMC includes teller terminals, electronic point-of-sale terminals, microcomputers (primarily IBM and Unisys), CRTs, printers, in-bank MICR capture devices, peripherals, and ATMs.

Industry Markets

INPUT estimates that of FFMC's $787 million in information services revenue, approximately 57% ($450 million) was derived from retailers/merchants, 13% ($100 million) from financial services institutions, 8% ($60 million) from health care/Medicaid, 18% ($142 million) from cross-industry data imaging applications, and the remaining 4% from other industries.

Financial services customers range in size from newly chartered institutions with the minimum required capital, to institutions with billions of dollars in assets.

Credit card services are marketed to large multilocation retailers, mail order companies, and restaurant and hotel chains.

Data imaging services are marketed to large commercial clients, as well as to nonprofit organizations and other direct-mail fundraisers.

Geographic Markets

The majority of FFMC's 1990 revenue was derived from the U.S. The company also has clients in the Caribbean and Canada.

FFMC currently operates data centers and branch offices in all 50 states.

Computer Hardware

FFMC's information services data centers are located as follows: (as of December 1990):

- Basis operates seven host and eight remote data centers.
- First Image Management Company has 105 data centers nationwide.
- The Computer Company operates 12 data centers.
- Merchant Services has data centers in Fort Lauderdale (FL) and Melville (NY).

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FIRST FINANCIAL MANAGEMENT CORPORATION
3 Corporate Square
Suite 700
Atlanta, GA 30329
(404) 321-0120

Patrick H. Thomas, Chairman, President, and CEO
Public Corporation, NYSE
Total Employees: 8,200
Total Revenue, Fiscal Year End 12/31/89: $666,740,000
Information Services Revenue: $585,000,000

The Company

First Financial Management Corporation (FFMC), founded in 1971, provides a range of processing services, including financial institution processing, data imaging, micrographics, medical claims servicing, and merchant credit card authorization, processing, and settlement. FFMC also operates a hybrid financial institution and a finance company. Services are currently provided to over 70,000 commercial customers and 450,000 consumers.

Since 1983, FFMC has completed 29 acquisitions, which represent annualized revenues of $670 million and added 8,000 employees, 68,500 commercial customers and 450,000 consumer customers.

- FFMC has increased its information services operations and customer base from 170 customers served by 12 data centers in December 1982 to over 70,000 customers served by 84 data centers in January 1990. Much of this expansion since early 1984 has been the result of the acquisition of 28 information services businesses.
- During 1989, FFMC acquired three information services firms, including The Computer Company, MicroBilt Corporation, and Data Preparation, Inc.
- In May 1989, FFMC also completed the acquisition of Georgia Federal Bank for $234.5 million. Georgia Federal, the largest thrift institution in Georgia, provides FFMC with a link to the U.S. payments system for its commercial services business, including membership in the Mastercard and VISA associations.
- FFMC management believes its company is one of the largest providers of processing services to financial institutions in the U.S.

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FFMC's total 1989 revenue reached $666.7 million, a 56% increase over 1988 revenue of $427.6 million. Net income rose 65%, from $34.5 million in 1988 to over $56.8 million in 1989. In the five-year summary that follows, financials have been restated to reflect the pooling-of-interests acquisition of MicroBilt Corporation in 1989:

FIRST FINANCIAL MANAGEMENT CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR					
ITEM	1989	1988	1987	1986	1985	CAGR
Revenue	$666.7	$427.6	$177.1	$74.4	$52.7	89%
• Percent increase from previous year	56%	141%	138%	41%	N/A	
Income before taxes	$92.8	$56.7	$23.7	$12.5	$7.6	87%
• Percent increase from previous year	64%	139%	90%	65%	N/A	
• Gross margin	14%	13%	13%	17%	14%	
Net income	$56.8	$34.5	$14.4	$7.3	$4.8	85%
• Percent increase from previous year	65%	140%	97%	51%	N/A	
• Net margin	9%	8%	8%	10%	9%	
Earnings per share	$2.15	$1.69	$1.08	$0.67	$0.52	43%
• Percent increase from previous year	27%	56%	61%	29%	N/A	

1989 acquisitions accounted for approximately one-half of the revenue growth and internal marketing efforts and core business growth (including acquisitions completed in prior years) accounted for the remainder.

Information services acquisitions made during 1989 and 1988 include the following:

- In December 1989, FFMC completed the acquisition of MicroBilt Corporation of Atlanta (GA) in exchange for FFMC common stock valued at $118.7 million.
  - MicroBilt, with approximately 200 employees, develops and markets integrated data communications and information processing systems for niche markets. The company

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currently targets the credit verification, health care, wholesale, and retail markets.

- Microbilt had revenue of $23.1 million for the fiscal year ending January 1989 and $24.3 million for calendar 1989. Net income was $5.2 million in fiscal 1989 and $4.9 million in calendar 1989.

- MicroBilt currently operates as a subsidiary within FFMC's Merchant Services business segment.

- In September 1989, FFMC completed the acquisition of The Computer Company (TCC), a subsidiary of Blue Cross and Blue Shield of Virginia, for $38.2 million in cash plus contingent payments based on future performance.

  - TCC provides processing services for state Medicaid programs and pharmaceutical claims.

  - TCC now operates as part of FFMC's Data Imaging and Micrographics Services Group within the Data Services business segment.

- In July 1989, FFMC acquired Data Preparation, Inc. (DPI) of Birmingham (AL) for $3.1 million in cash and stock plus contingent payments based on future performance. DPI is a data capture and conversion firm with annual revenue of $6 million.

- In December 1988, FFMC completed the acquisition of Appalachian Computer Services, Inc. (ACS) of London (KY) for $22.3 million in cash, $24.2 million in FFMC stock, and contingent payments based on future performance.

  - ACS, with 1988 revenue of approximately $60 million, has 23 years of experience in designing, maintaining, and managing large data base operations.

  - ACS now operates as a wholly owned subsidiary of FFMC within the Data Imaging and Micrographics Group of the Data Services business segment.

- During the fourth quarter of 1988, FFMC acquired a credit union processing center located in Flint (MI) from Anacomp for $2.4 million in cash. The center provides processing to approximately 120 customers. Its operations have been merged into FFMC's Data Services business segment.

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- In February 1988, FFMC acquired the merchant credit card processing contracts of Manufacturers Hanover Trust Company for $2.1 million.

  - At the time of the acquisition, the contracts involved services provided to approximately 4,800 merchants in all 50 states with annual credit card sales of $1.2 billion and a revenue base of $25 million.

  - These contracts have been merged into FFMC's Merchant Services business segment.

As a result of its acquisition of Georgia Federal Bank, FFMC conducts its operations in two areas--Consumer Services, which includes the operations of Georgia Federal Bank and its subsidiaries, and Commercial Services, which includes FFMC's information services activities. The company's Commercial Services are further organized into two business segments as follows:

- The Data Services business segment, with over 5,000 employees, provides information services through the following groups:

  - Basis Information Technologies, Inc. (Basis) provides processing services to financial institutions. Basis (formerly the Financial Services Group) represents the reorganization of FFMC's 17 financial institution processing acquisitions into one functional organization. Basis serves over 1,100 customers in 42 states.

  - The Data Imaging and Micrographics Group consists of the operations of Endata (computer output micrographics), Appalachian Computer Services (data management), and The Computer Company (health care claims processing). This group provides services to over 7,400 customers in 46 states.

- The Merchant Services business segment, with over 1,000 employees, provides information services through NaBANCO (merchant credit card processing) and MicroBilt (integrated systems for retail, wholesale, credit verification, and health care markets).

A three-year financial summary by business segment follows:

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FIRST FINANCIAL MANAGEMENT CORPORATION
THREE-YEAR FINANCIAL SUMMARY
($ millions)

	FISCAL YEAR					
	1989		1988		1987	
ITEM	$	PERCENT OF TOTAL	$	PERCENT OF TOTAL	$	PERCENT OF TOTAL
Revenue						
Data Services	$260.2	39%	$194.7	46%	$114.5	65%
Merchant Services	324.7	49%	232.2	54%	63.5	36%
Consumer Services	92.0	14%	--	--	--	--
Corporate	(10.2)	(2%)	0.7	--	(0.9)	(1%)
TOTAL	**$666.7**	**100%**	**$427.6**	**100%**	**$177.1**	**100%**
Income before taxes						
Data Services	$52.8	57%	$39.8	70%	$24.6	104%
Merchant Services	37.7	41%	31.4	55%	11.2	47%
Consumer Services	25.5	27%	--	--	--	--
Corporate	(23.2)	(25%)	(14.5)	(25%)	(12.1)	(51%)
TOTAL	**$92.8**	**100%**	**$56.7**	**100%**	**$23.7**	**100%**

Data Services revenue increased 34% in 1989 primarily as a result of acquisitions.

- Internal growth within the computer output micrographics product line was offset by other declines in revenue from financial institution processing services. During 1989 FFMC consolidated its financial institution processing operations, reducing the number of host (major) data centers from 20 to 12 and the total number of data centers by 30%. Also during 1989, First Union Corporation of Georgia completed its conversion from FFMC data processing systems to its in-house system.

Merchant Services revenue increased 40% during 1989. The acquisition of the merchant credit card portfolio of Security Pacific accounted for approximately one-third of this growth, while the remainder was due to the success of internal marketing efforts and growth of existing customers.

- Gross margins declined slightly in 1989 due to increases in interchange fee rates and increases in fixed costs. In anticipation of future growth and a change in mix of the

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customer base to smaller, higher margin merchants, NaBANCO's operations were upgraded and expanded in facilities, equipment, and personnel.

As of December 31, 1989, FFMC had 8,200 employees, of which approximately 6,000 are involved in information services.

FFMC's competitors generally vary by regional area. Major competitors to FFMC, by product/service area, include the following:

- Financial institution processing:
  - Bank services: Electronic Data Systems and Systematics
  - Thrift services: FIserv and Gesco
  - Mortgage services: CPI and Lomas & Nettleton
- Data imaging services: Anacomp and Zytron (Dun & Bradstreet)
- Credit card services: National Processing Co., Citicorp, and National Data Corporation
- Medical processing: Electronic Data Systems and Unisys

Key Products and Services

Approximately $585 million of FFMC's total 1989 revenue was derived from information services provided through the company's Data Services and Merchant Services operations. Approximately 96% of information services was derived from various processing services and 4% from integrated systems provided by MicroBilt.

Data Services:

Basis provides processing services to over 1,100 customers in 42 states. Clients include banks, mortgage servicers, thrift institutions, and credit unions.

- Bank applications supported include deposit, loan, financial accounting, credit card processing, EFT, and mortgage origination and servicing.
- Financial processing services are generally offered under multiyear contracts of three- to five-year initial terms. Fees are

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based on the number of transactions handled and accounts maintained for each service, subject to minimum monthly charges.

- During 1989, FFMC entered into an agreement with IBM to develop and support a common integrated bank application software product for providing electronic delivery of information to financial institutions.

Through the Data Imaging and Micrographics Group, FFMC provides data imaging services and data base services to over 7,400 customers in 46 states through three units:

- Endata provides computer output micrographics (COM) services to more than 5,000 customers, operating from 30 locations in 16 states.
  - Micrographics equipment, including microfiche and microfilm readers, reader/printers, microfilm cameras, and related supplies, are also sold to COM customers.
  - Large-volume custom laser printing services are provided to major commercial and nonprofit organizations through seven locations.
- Appalachian Computer Services (ACS) provides data base design, entry, and management; image conversion; and systems operations services for approximately 1,500 customers through 18 locations nationwide.
  - The operations of ACS were expanded with the acquisition of Data Preparation, Inc. during 1989.
  - Direct mail marketing services (formerly provided through Endata) include consulting, design of direct mail marketing programs, statistical analysis, procurement of names, artwork and copy, extraction of computer-based file information, electronic printing of direct mail materials, and lettershop services. These services are provided to direct mail fund raisers nationwide.
  - The U.S. Immigration and Naturalization Services is a major customer of ACS.
- The Computer Company (TCC), acquired during 1989, provides transaction processing services for Medicaid programs in eight states and Washington, D.C. and processes pharmaceutical claims for private and public third-party payers.

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- TCC has been a fiscal agent in the Medicaid System for 17 years, and processes about 83 million Medicaid claims annually. These services are provided on a contractual basis, generally with terms of three years or more.

- TCC currently processes 17 million pharmaceutical claims annually. The company provides services on the largest government pharmaceutical claims processing contract in the nation, the Pharmaceutical Assistance Contract for the Elderly (PACE) for the state of Pennsylvania.

- In total, TCC processes more than 100 million claims annually worth $7 billion. Total calendar 1989 revenues are estimated at over $50 million.

Merchant Services:

NaBANCO, a wholly owned subsidiary of FFMC, provides third-party credit card authorization, processing, and settlement services to approximately 50,000 customers throughout the U.S. and the Caribbean.

- Merchants served range from large, multilocation retailers to one-location specialty stores, restaurant and hotel chains, mail order companies, government/utilities, car rental agencies, and financial institutions. Clients also include fast food chains, theaters, and supermarkets.

- Annual credit card volume is expected to reach $24 billion in 1990, up from $17 billion in 1989 and $12 billion in 1988. Over 95% of the transactions settled by NaBANCO are done electronically.

- Services are provided through processing centers in Fort Lauderdale (FL) and Melville (NY). These operations support over 88,000 electronic cash registers and over 56,000 dial-up point-of-sale authorization and draft capture terminals.

- Fees for credit card services are based on the dollar volume of transactions processed.

- In July 1989, FFMC and Security Pacific National Bank of Los Angeles signed a 10-year, $15.1 million exclusive contract for NaBANCO to provide credit card authorization, processing, and settlement services for the merchant customers of Security Pacific.

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- The business represents over 15,000 customers with annual credit card sales between $3 and $4 billion, adding an estimated $70 million in annual revenue to FFMC.

- Gateway switching to major check guarantee services (JBS, Telecredit, and Telecheck), check authorization, and debit card support are also available to NaBANCO customers.

- NaBANCO also offers specialized services such as cash consolidation and specialty data capture applications, property management credit card interfaces for hotel and restaurant chains, and on-line address verification for mail order merchants.

- FFMC has also developed unique, industry-specific PC software to facilitate authorization and settlement through IBM-compatible personal computer systems.

MicroBilt markets and supports integrated systems based on internally developed hardware and software products.

- Systems are available for credit verification, electronic forms processing (health care), message broadcast and electronic forms communications (wholesale industry), and retail merchants.

- MicroBilt manages over 40,000 systems for more than 12,000 customers nationwide.

FFMC sells and leases equipment for use in conjunction with its various processing services. Equipment marketed by FFMC includes teller terminals, electronic point-of-sale terminals, microcomputers (primarily IBM and Unisys), CRTs, printers, in-bank MICR capture devices, peripherals, and ATMs.

Industry Markets

The company currently provides information services to over 1,100 financial institutions and ATM systems, 7,400 data imaging customers, and 62,000 merchants in all 50 states.

Financial services customers range in size from newly-chartered institutions with the minimum required capital, to institutions with multibillion dollars in assets.

Credit card services are marketed to large multilocation retailers, mail order companies, and restaurant and hotel chains.

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Data imaging services are marketed to large commercial clients, as well as nonprofit organizations and other direct mail fund raisers.

Geographic Markets

The majority of FFMC's 1989 revenue was derived from the U.S. The company also has clients in the Caribbean and Canada.

FFMC currently operates data centers and branch offices in 46 states.

Computer Hardware

In December 1989, FFMC sold the majority of its non-IBM hardware for $31.0 million to a third-party lessor. FFMC also agreed to a bundled lease of computer equipment and software maintenance and support services with IBM for a minimum of six years, beginning in 1990.

FFMC's information services data centers are located as follows (as of December 1989):

- Basis operates 24 data centers in 15 states.
- Data Imaging and Micrographics Services has 58 data centers located nationwide.
- Merchant Services has data centers in Fort Lauderdale (FL) and Melville (NY).

As previously discussed, FFMC is taking steps to eliminate redundancies and increase the efficiency of its nationwide communications network.

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FIRST FINANCIAL MANAGEMENT CORPORATION
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Atlanta, GA 30329
(404) 321-0120

Patrick H. Thomas, Chairman, President, and CEO
Public Corporation, OTC
Total Employees: 2,708
Total Revenue, Fiscal Year End 12/31/87: $175,095,000

The Company

First Financial Management Corporation (FFMC), founded in 1971, provides a range of processing services for the handling of various financial transactions and the management of customer accounts. The company's primary customers include banks, thrifts, mortgage servicers, and merchants. FFMC also provides data imaging services.

FFMC has increased its operations and customer base from 170 customers served by 12 data centers in December 1982 to over 19,700 customers served by 66 data centers in February 1988. Much of this expansion since early 1984 has been the result of the acquisition of 20 information services firms.

- During 1987 FFMC made seven acquisitions. Three major acquisitions, First Data Management Company, Inc., National Bancard Corporation (NaBANCO), and Endata, Inc., were completed during the fourth quarter. Two acquistions have been made this year.

- FFMC management believes its company is the largest provider of processing services to financial institutions in the U.S.

FFMC's total 1987 revenue reached $175.1 million, a 151% increase over 1986 revenue of $69.7 million. Net income rose 111%, from $5.5 million in 1986 to over $11.6 million in 1987. A five-year financial summary follows:

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FIRST FINANCIAL MANAGEMENT CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	1987	1986	1985	1984	1983
Revenue	$175,095	$69,694	$52,355	$35,877	$24,002
• Percent increase from previous year	151%	33%	46%	49%	31%
Income before taxes	$19,431	$9,253	$5,611	$4,212	$2,815
• Percent increase from previous year	110%	65%	33%	50%	40%
Net income	$11,641	$5,523	$3,432	$2,569	$1,768
• Percent increase from previous year	111%	61%	34%	45%	40%
Earnings per share (a)	$1.16	$0.69	$0.51	$0.39	$0.28
• Percent increase from previous year	68%	35%	31%	39%	27%

(a) Restated to reflect two 3-for-2 stock splits declared since the company's initial public offering in March 1983 (June 1985 and April 1987).

FFMC management attributes growth in revenue and net income to the following:

- The majority of revenue growth is attributed to acquisitions. The revenue contribution from current year acquisitions was $74 million in 1987, $10 million in 1986, and $10 million in 1985.

FFMC's capitalized expenditures for software development, purchase, and modification, including acquired software,totaled approximately $9.5 million (5% of revenue) in 1987, $4.8 million (7% of revenue) in 1986, and $2.3 million (4% of revenue) in 1985.

Since 1984 FFMC has acquired 20 companies as follows:

- In February 1988 FFMC acquired the credit card processing contracts of Manufacturers Hanover for $4-$6 million.
  - The contracts involve services provided to approximately 7,000 merchants.

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- These contracts have been merged into FFMC's Merchant Credit Card Services Group.

- This business is expected to produce approximately $30 million in annual revenue.

- In January 1988 FFMC acquired Management Info Support, Inc. of Denver (CO) for $200,000.

  - Management Info Support provided data imaging services to 31 customers in the Denver area.

  - These operations have been merged into FFMC's Data Imaging Services Group.

- In December 1987 FFMC acquired Midwest COM Systems of Indiana, Inc. for $400,000.

  - Midwest COM Systems provided data imaging services to 60 customers in Indiana, Illinois, and Michigan.

  - These operations have been merged into FFMC's Data Imaging Services Group.

- In December 1987 FFMC acquired First Data Management Company, Inc. (FDMC) of Oklahoma (OK) for 1.5 million shares of FFMC common stock (valued at approximately $31.9 million).

  - FDMC provides processing and electronic funds transfer services to approximately 340 banks in Oklahoma, California, Colorado, New Mexico, Oregon, Kansas, and Missouri.

  - FDMC had 1986 revenue of $33 million and approximately 440 employees at the time of the acquisition.

  - FDMC now operates as a wholly owned subsidiary of FFMC within the Bank Services Division (Financial Services Group).

- In October 1987 FFMC acquired Endata, Inc. of Nashville (TN) for $50.2 million in stock and cash.

  - Endata provides data imaging services to 2,300 customers and direct mail and and laser printing services to over 700 customers through centers in 26 cities throughout the U.S.

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- Endata had 1986 revenue of $38 million and approximately 500 employees at the time of the acquisition.

- The operations of Endata have been merged into FFMC's newly formed Data Imaging Services Group.

- In October 1987 FFMC acquired NaBANCO of Ft. Lauderdale (FL) for $48.7 million in cash and stock.

  - NaBANCO provides credit card authorization and financial clearing services to 15,000 customers in 37,000 customer locations and handles over $7 billion in credit card transactions annually. Its clients are primarily major retailers with sales in excess of $150 million.

  - NaBANCO had 1986 revenue of $122 million and approximately 485 employees at the time of the acquisition.

  - NaBANCO now operates as a wholly owned subsidiary of FFMC within the Merchant Credit Card Services Group.

- In July 1987 FFMC acquired American Automated (AA) and its affiliate, On-Line Terminal Services, Inc. (OLTS), of Atlanta (GA) for 38,000 shares of FFMC common stock and $3 million in cash.

  - AA provides various processing services to mortgage banking, insurance, and savings institutions across the U.S. OLTS sells and leases related computer hardware to AA customers.

  - AA and OLTS now operate as FFMC's Mortgage Services Division.

- In March 1987 FFMC acquired Confidata Corporation of Dania (FL), a subsidiary of North Ridge Bank, for $500,000. Confidata provided processing services to approximately 15 banks in Florida.

- In March 1987 FFMC acquired Tel-A-Data Limited Partnership of Lombard (IL), a data processor servicing approximately 50 banks and thrift institutions, for $5.7 million in cash plus the assumption of certain liabilities of approximately $2.5 million.

- In October 1986 FFMC acquired Mid-Continent Computer Services, Inc. of Denver (CO), a wholly owned subsidiary of First Columbia Financial Corporation, for $23.6 million in cash

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plus approximately $5.1 million paid to First Columbia for debt owed by Mid-Continent.

- Mid-Continent provided processing services to over 140 thrift institutions in 23 states and had 1985 revenue of $32.9 million (of which $1.9 million was derived from First Columbia). FFMC continues to provide processing to Columbia Savings (a subsidiary of First Columbia) under a long-term contract.

- As part of the acquisition, FFMC obtained a 10% interest in The Saddlebrook Corporation and certain distribution rights to its Advanced System™, a system for transaction processing for thrift institutions.

- In September 1986 FFMC acquired American Data Technology, Inc. (ADT), a wholly owned subsidiary of American National Bank & Trust Company of St. Paul (MN), for approximately $2.2 million in cash. ADT provided processing services to over 80 banks in North Dakota, South Dakota, Montana, and Minnesota.

- In August 1986 FFMC acquired American Information Services, Inc. (AIS) of Chicago Heights (IL) for $2.5 million in cash. AIS provided processing services to 10 banks in the Chicago area.

- In December 1985 FFMC acquired Bob White Computing Services, Inc. (BWCS) of Bloomington (IL) for $229,000. BWCS provided processing services to 18 banks in the Bloomington area.

- In July 1985 FFMC acquired Decimus Data Services Corporation from Bank of America for $3.4 million in notes. Decimus provided processing services to 120 banks through seven processing centers in the eastern U.S.

- In June 1985 FFMC acquired Financial Data Services, Inc. of Atlanta (GA) for $2.8 million in cash. Financial Data Services provided processing services to 26 banks in Georgia.

- In February 1985 FFMC acquired the data processing assets of Data One Corporation of Knoxville (TN) for $135,000 in cash.

- In August 1984 FFMC acquired Financial Computer Services, Inc. of Commerce (GA) for $726,000.

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- In May 1984 FFMC acquired the data processing assets of First American National Bank-Eastern, N.A. for $200,000.

- In April 1984 FFMC acquired Financial Systems, Inc. of Jackson (MS) for $248,000.

- In March 1984 FFMC acquired United Computer Services, Inc. of Marion (IL) for $2 million.

FFMC is currently organized into the following business units:

- The Financial Services Group includes the operations of the following three divisions:

  - The Bank Services Division provides processing services to over 1,300 bank customers in 25 states through 29 data centers. This division includes the operations of FFMC's wholly owned subsidiary FDMC, which was acquired in December 1987.

  - The Thrift Services Division provides processing and associated support services to approximately 170 thrift institutions in 24 states through data centers in Denver, San Diego, and Wichita. The division was established in 1986 with the acquistion of Mid-Continent Computer Services.

  - The Mortgage Services Division, which provides mortgage processing services to 85 mortgage servicers in 23 states through its data center located in Atlanta (GA), was established in 1987 with the acquisition of American Automated.

- The Data Imaging Services Group provides data imaging services, including computer output micrographics and electronic printing, to over 3,500 customers through processing centers located in 15 states. This group was established in 1987 with the acquisition of Endata.

- The Merchant Credit Card Services Group provides credit card authorization and financial clearing services to retailers. This group was established in 1987 with the acquisition of NaBANCO and expanded with the contract acquisitions of Manufacturers Hanover in early 1988.

- The Corporate Division consists of Executive Management, which provides strategic planning and corporate policy, and Corporate Staff, which provides functional support to FFMC's

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other operating units in finance, tax, planning, purchasing, accounting, internal audit, and human resources.

As of December 31, 1987 FFMC had 2,708 employees, segmented as follows:

Direct sales and servicing	94
Customer service	255
Operations	1,709
Software development and maintenance	420
Administrative	230
	2,708

FFMC's competitors generally vary by regional area. Major competitiors to FFMC, by product/service area, include the following:

- Bank services: MTech and Systematics.
- Thrift services: FIserv and Gesco.
- Mortgage services: CPI and Lomas & Nettleton.
- Data imaging services: Anacomp and Zytron (Dun & Bradstreet).
- Credit card services: First Data Resources (American Express) and National Data Corporation.

Key Products and Services

Approximately 93% ($162.9 million) of FFMC's 1987 revenue was derived from processing services, 5% ($8.7 million) from equipment sales, and 2% ($3.5 million) from other income, primarily interest.

A three-year summary of source of revenue, as provided by FFMC, follows:

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FIRST FINANCIAL MANAGEMENT CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1987		1986		1985	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Processing service fees	$162.9	93%	$62.1	89%	$43.6	83%
Equipment sales	8.7	5%	6.3	9%	8.1	16%
Other income	3.5	2%	1.2	2%	0.7	1%
TOTAL	**$175.1**	**100%**	**$69.6**	**100%**	**$52.4**	**100%**

FFMC's 1987 source of revenue by operating unit follows:

Financial Services Group	57%
Credit Card Services Group	29%
Data Imaging Services Group	7%
Equipment and other	7%
	100%

Bank Services Division processing and related services and delivery systems are designed to permit a customer's use of FFMC's services to grow from a minimum group of services using batch delivery of information to an FFMC processing center, to a range of services using an on-line central information file and in-bank delivery systems.

- The processing services currently provided by the Bank Services Division include deposit, loan, financial accounting, credit card processing, and delivery systems, as follows:

  - Deposit Systems. This group of services includes separate systems for demand deposit accounts, savings accounts, and certificates of deposit, and also a combined deposit system. Each system may be used separately, and the systems for demand deposit and savings accounts may be used together through the combined deposit system. Each system performs all processing related to the particular account and provides income and expense control reports, audit controls, and

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marketing and customer service features, such as sequential and descriptive statements.

- Loan Systems. The loan systems include systems for installment loans, commercial loans, financial leases, and lines of credit. Each system provides for various methods of calculating interest and delinquency charges, automatic late payment notices, and delinquency and non-accruing loan reports for management.

- Financial Systems. The financial systems include some services used internally by the financial institutions serviced by FFMC and others that the financial institutions use to provide services to their customers. Included are general ledger, fixed assets, corporate analysis, account reconciliation, and payroll systems, as well as an on-line insurance premium financing system.

- Credit Card System. The ONLY BI™ Credit Card system, introduced in late 1983, is an on-line system that allows FFMC to provide processing for MasterCard, VISA, Gold Card, private label cards, VIP bank cards, and, if desired, debit cards. FFMC has over 140,000 cardholders and over 10,000 merchants on this system. This system can be used through both the Bank Services and Thrift Services Divisions.

- Delivery Systems. FFMC has developed and operates delivery systems using ground couriers, high-speed data transmission, remote input/output centers, a proof of deposit system, in-bank MICR capture devices, in-bank data entry, on-line teller machines, ATM interchanges, an on-line central information file, and an automated electronic clearinghouse function.

  - Batch processing requires the customer bank to prepare and deliver data input, by ground courier, to one of FFMC's centers. FFMC then processes the data and prepares printed reports that are delivered back to the customer, usually the next day.

  - The customer can install an in-bank MICR capture device that will capture data for transmission to FFMC, install an in-bank remote printer to receive output directly from FFMC on-line, or do both.

  - If a customer has on-line equipment, output resulting from batch processing can be accessed through CRTs

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and teller machines instead of relying entirely on the printed reports.

- An institution desiring a fully automated delivery system can install an automated central information file (CIF) system, which allows the institution to link all of a customer's relationships and provides coordinated access to all of his accounts. FFMC also received VISA and MasterCard account information that may be linked to the Customer's CIF record. An automated CIF system is an integral part of installing ATMs.

- FFMC also offers a microcomputer-based system that follows FFMC's marketing strategy of offering products and systems that can grow with the customer at the rate desired. This system is available in a basic configuration with minimal hardware and selected software.

  It can be expanded to add capacity and processing power with various software packages and also can be connected to FFMC's processing service, permitting communication between the customer and FFMC's central computers.

  In addition, various lobby and platform automation products are available to allow bank personnel access to a data base of all customer accounts.

First Data Management Company (FDMC) acquired by FFMC in late 1987, now operates as a wholly owned subsidiary providing the following products and services:

- FDMC provides electronic bank data processing, EFT support, and facilities management services to approximately 340 financial institutions from its data centers in Oklahoma City (OK) and Concord (CA).

  - The target market for these services includes financial institutions ranging in size from approximately $20 million to $3 billion in assets. The majority of processing service agreements have initial terms of one to five years.

  - FDMC's services are offered through a network using FDMC's main data center together with ESCAPE 2000, the company's IBM System 36-based electronic delivery system. Data from checks is captured either at the customer's location or at FDMC's data center and noncheck information is entered via on-line terminals.

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- FDMC's principal EFT service, the Service Card System (SCS), provides financial institutions with the hardware, software, data communications, and reconciliations necessary for the financial institution to offer a debit card service to its customers. This network services financial institutions, retail merchants, and consumers.

- FFMC's Financial Services Group participates in 24 regional or national ATM networks in 40 states. Included in these are four proprietary networks in which an FFMC customer with on-line ATMs may participate (Georgia Express®, Alabama Express®, Express Banker™ in Florida, and FDMC's Service Card System in Kansas, Missouri, and Oklahoma). Subject to state law restrictions applicable to Florida institutions, these systems allow an institution to participate in various regional ATM networks, including the networks operated exclusively for FFMC's customers.

  - FFMC processes approximately 63 million transactions annually. There are approximately 300 financial institutions served by FFMC through all 22 ATM networks in which FFMC participates, including 62 banks currently involved in the FFMC proprietary interchange networks.

  - The networks of which FFMC is a member include Rock Mountain Bank Card System®, CIRRUS®, AVAIL™, ChecOkard®, HONOR™, MONEC, Relay, and pulse™.

The Thrift Services Division provides processing services and related products to savings and loan institutions. Its operations support over 8,000 terminals installed in customer locations throughout the U.S. The division also provides special programming and equipment leasing services to its customers.

- The on-line applications available currently include savings programs, items processing, pre-authorized payments and deposits, mortgage loans, utility programs, timesharing for management decisionmaking, commercial loans, NOW accounts, customer information file (CIF), general ledger, commitment loans, and asset/liability management programs.

- FFMC expects that the volume of transactions processed through electronic funds transfer (EFT) will increase. The company is able to provide software and hardware, along with data communications and reconciliation services, neccessary to support debit card transaction processing. These services will be accessible to both Thrift Services and Bank Services Division customers.

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The Mortgage Services Division provides various processing services, including mortgage loan origination, mortgage loan payment processing, and mortgage servicing to mortgage banks, commercial banks, insurance companies, and thrift institutions.

- Services are provided to over 85 mortgage servicers in 23 states through a data center located in Atlanta.

- The majority of transactions are processed via on-line systems with terminals located in the customers offices.

Each processing customer enters into a service agreement providing for an initial term ranging from one to five years. The fee for each service is usually based on the number of transactions handled and accounts maintained by FFMC during each month, with a minimum monthly charge for each service, regardless of volume.

- Since 1984, most new service agreements provide for an initial term of three to five years and are renewable for a like term unless terminated upon three to six months notice by either party prior to expiration of the current term.

- Less than 10% of FFMC's existing customers (most of whom became customers before 1984) still have service agreements that had an initial term of one year and now continue in effect unless terminated upon three to six months notice by either party.

Through the Merchant Credit Card Services Group FFMC provides third-party credit card authorization and financial clearing services.

- Upon completing the conversion of over 6,000 customer accounts purchased in February 1988 from Manufacturers Hanover Trust, this group will provide services to over 20,000 customers throughout the 50 United States and the Carribean.

- Customers include in excess of 200 major retailers with annual revenue in excess of $150 million each.

- Services are provided through processing centers in Fort Lauderdale (FL) and Melville (NY). These operations support over 55,000 electronic cash registers and over 28,000 dial up point-of-sale authorization and draft capture terminals. Over 90% of credit card authorizations are performed electronically. Voice authorization is available in the event electronic capabilities are interrupted.

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- Approximately $7.7 billion in credit card transactions were handled in all of 1987 (including the portion of the year prior to FFMC's acquisition of NaBANCO).

- Fees for credit card services are based on the dollar volume of transactions processed.

Through the Data Imaging Services Group FFMC provides data imaging services to over 2,300 customers through centers in 15 states.

- COM and electronic laser printing services are provided primarily through a decentralized organization operating within regional markets consisting of six to eight branch locations in each region.

- Micrographics equipment, including microfiche and microfilm readers, reader/printers, microfilm cameras, and related supplies, are also sold to COM customers.

- During 1987 FFMC entered into a contract to provide COM services to BellSouth Corporation. In connection with this contract, three new service centers were opened.

- Large-volume custom laser printing services are provided to major commercial and non-profit organizations through a facility in Nashville (TN).

- Direct mail marketing services, including consulting, design of direct mail marketing programs, statistical analysis, procurement of names, artwork and copy, extraction of computer-based file information, electronic printing of direct mail materials, and lettershop services, are provided to direct mail fund raisers nationwide.

FFMC sells and leases equipment for use in conjunction with its various processing services. Equipment marketed by FFMC includes teller terminals, electronic point-of-sale terminals, microcomputers (primarily IBM and Unisys), CRTs, printers, in-bank MICR capture devices, peripherals, and ATMs.

Industry Markets

INPUT estimates approximately 60% of FFMC's 1987 revenue was derived from the banking and finance industry and the remaining 40% was derived from retailers, mail order companies, restaurant chains, hotels, and direct mail users.

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Financial services are marketed to approximately 1,500 financial institutions, including approximately 330 banks under FFMC's contractual relationship with the Federal Deposit Insurance Corporation. Customers range in size from newly-chartered institutions with the minimum required capital, to institutions with up to $6 billion in assets. To date most of FFMC's financial institution customers have been community banks and thrift institutions with assets less than $1 billion.

Credit card services are marketed to large multi-location retailers, mail order companies, restaurant chains, and hotels.

Data imaging services are marketed to large commercial clients, as well as non-profit organizations and other direct mailfund raisers.

Geographic Markets

One hundred percent of FFMC's 1987 revenue was derived from the U.S.

FFMC has customers in 50 U.S. states and operates 66 data centers nationwide.

- The Financial Services Group operates 35 data centers through its Banking, Thrift, and Mortgage Services Divisions and FDMC.
- Data Imaging Services has 29 data centers located nationwide.
- Merchant Credit Card Services has data centers in Fort Lauderdale (FL) and Melville (NY).

Computer Hardware

FFMC's 66 data centers nationwide have a total of approximately 100 mainframe systems installed. The majority of FFMC's customers are served via Unisys or IBM hardware. FFMC also uses NCR systems to serve its customers.

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COMPANY PROFILE

FIRST FINANCIAL MANAGEMENT CORPORATION
3 Corporate Square
Suite 700
Atlanta, GA 30329
(404) 321-0120

Patrick H. Thomas, Chairman, President, and CEO
Public Corporation, OTC
Total Employees: 1,230
Total Revenue, Fiscal Year End 12/31/86: $69,694,000

THE COMPANY

- First Financial Management Corporation (FFMC), founded in 1971, provides processing services to community banks and thrift institutions through 36 data centers located throughout the U.S. The company operates three proprietary interchange ATM networks and is interconnected with 19 nonproprietary national and regional ATM networks. FFMC also sells and leases computer-related equipment to financial institutions in conjunction with its processing services.

- FFMC has increased its operations and customer base from 170 customers served by 12 data centers in December 1982 to over 860 customers served by 36 data centers in March 1987. Much of this expansion since early 1984 has been the result of the acquisition of 13 computer services firms. FFMC management believes its company is the second largest provider of processing services to community banks and thrift institutions in the U.S.

- From 1972 until April 1986 FFMC's principal shareholder was First Union Corporation of Georgia (formerly First Railroad & Banking Company of Georgia).

  - On April 4, 1986, First Union sold its remaining interest in FFMC (approximately 57% of its outstanding common stock) to institutional investors outside the U.S., primarily in the U.K.

  - Pursuant to long-term agreements, FFMC continues to provide processing services and related equipment to First Union and its subsidiaries. A three-year summary of revenue derived from First Union and its subsidiaries follows ($ thousands):

	1986	1985	1984
Service fees	$13,957	$11,088	$7,777
Equipment sales	1,564	2,568	3,129
Total	$15,521	$13,656	$10,906

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- In March 1987 FFMC amended its existing servicing and equipment agreements with First Union. The amendment calls for a reduction in the service period of the agreement in exchange for a payment of $19.8 million to FFMC and a guarantee of service revenues of $50.3 million through 1989, both of which will be recognized as revenues over the remaining contract term.

- FFMC's total 1986 revenue reached $69.7 million, a 33% increase over 1985 revenue of $52.4 million. Net income rose 61%, from $3.4 million in 1985 to $5.5 million in 1986. In the five-year summary that follows, financial results of the 11 companies FFMC acquired between 1984 and 1986 have been included from their respective dates of acquisition.

FIRST FINANCIAL MANAGEMENT CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

Item \ Fiscal Year	1986	1985	1984	1983	1982
Revenue	$69,694	$52,355	$35,877	$24,002	$18,377
. Percent increase from previous year	33%	46%	49%	31%	18%
Income before taxes	$ 9,253	$ 5,611	$ 4,212	$ 2,815	$ 2,012
. Percent increase from previous year	65%	33%	50%	40%	36%
Net income	$ 5,523	$ 3,432	$ 2,569	$ 1,768	$ 1,263
. Percent increase from previous year	61%	34%	45%	40%	36%
Earnings per share (a)	$ 0.69	$ 0.51	$ 0.39	$ 0.28	$ 0.22
. Percent increase from previous year	35%	31%	39%	27%	47%

(a) Restated to reflect a 3-for-2 stock split effected as a 50% stock dividend to shareholders of record on March 23, 1987.

- FFMC management attributes growth in revenue and net income to the following:

  - The majority of revenue growth is attributed to acquisitions, which contributed approximately $17 million, $13 million, and $7 million to revenues in 1986, 1985, and 1984, respectively.

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- The remainder of revenue growth was primarily due to new processing services contracts, increases in existing customer volumes, increases in customer use of new products and services, and price increases for existing contracts.

- Increases in net income were a result of increased revenue, offset by increased expenses reflecting acquisitions in their various stages of assimilation.

- FFMC's capitalized expenditures for software development, acquisition, and modification totaled approximately $3.1 million (4% of revenue) in 1986, $1.7 million (3% of revenue) in 1985, and $1.4 million (4% of revenue) in 1984.

- Revenue for the six months ending June 30, 1987 was $53.9 million, an 81% increase over $29.7 million for the same period in 1986. Net income rose 75%, from $2.4 million to $4.2 million. FFMC management attributes the growth primarily to the acquisitions completed in 1986.

- Since 1984 FFMC has acquired 13 companies as follows:

  - In March 1987 FFMC acquired Confidata Corporation of Dania (FL), a subsidiary of North Ridge Bank, for $500,000. Confidata provides processing services to approximately 15 banks in Florida.

  - In March 1987 FFMC acquired Tel-A-Data Limited Partnership of Lombard (IL), a data processor servicing approximately 50 banks and thrift institutions, for $5.7 million in cash plus the assumption of certain liabilities of approximately $2.5 million.

  - In October 1986 FFMC acquired Mid-Continent Computer Services, Inc. of Denver (CO), a wholly owned subsidiary of First Columbia Financial Corporation, for $23.5 million in cash plus approximately $5.1 million paid to First Columbia for debt owed by Mid-Continent.

    - Mid-Continent provides processing services to over 140 thrift institutions in 23 states. Mid-Continent, with 1985 revenue of $32.9 million (of which $1.9 million was derived from First Columbia), will continue to provide processing services to Columbia Savings (a subsidiary of First Columbia) under a long-term contract.

    - As part of the acquisition, FFMC obtained a 10% interest in The Saddlebrook Corporation and certain distribution rights to its Advanced System™, a newly developed system for transaction processing for thrift institutions.

  - In September 1986, FFMC acquired American Data Technology, Inc. (ADT), a wholly owned subsidiary of American National Bank & Trust Company of St. Paul (MN), for approximately $2.2 million in cash. ADT provides processing services to over 80 banks in North Dakota, South Dakota, Montana, and Minnesota.

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- In August 1986 FFMC acquired American Information Services, Inc. (AIS) of Chicago Heights (IL) for $2.5 million in cash. AIS provides processing services to 10 banks in the Chicago area.

- In December 1985 FFMC acquired Bob White Computing Services, Inc. (BWCS) of Bloomington (IL) for $229,000. BWCS provides processing services to 18 banks in the Bloomington area. Its operations have been merged into FFMC.

- In July 1985 FFMC acquired Decimus Data Services Corporation from Bank of America for $3.4 million in notes. Decimus provides processing services to 120 banks through seven processing centers in the eastern U.S. Its operations have been merged into FFMC.

- In June 1985 FFMC acquired Financial Data Services, Inc. of Atlanta (GA) for $2.8 million in cash. Financial Data Services provides processing services to 26 banks in Georgia.

- In February 1985 FFMC acquired the data processing assets of Data One Corporation of Knoxville (TN) for $135,000 in cash.

- In August 1984 FFMC acquired Financial Computer Services, Inc. of Commerce (GA) for $726,000.

- In May 1984 FFMC acquired the data processing assets of First American National Bank-Eastern, N.A. for $200,000.

- In April 1984 FFMC acquired Financial Systems, Inc. of Jackson (MS) for $248,000.

- In March 1984 FFMC acquired United Computer Services, Inc. of Marion (IL) for $2 million.

- During August 1987, FFMC announced an agreement for the acquisition of Endata, Inc. Endata provides data imaging services incorporating computer output micrographics and electronic printing technologies to 2,300 clients. The acquisition is expected to be final in October 1987.

- FFMC is currently organized into three divisions as follows:

  - The Bank Services Division provides processing services to over 720 bank customers through 33 data centers.

  - The Thrift Services Division provides processing and associated support services to over 140 thrift institutions in 23 states through data centers in Denver, San Diego, and Wichita. The division was established in 1986 with the acquisition of Mid-Continent Computer Services.

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- The Corporate Division consists of Executive Management, which provides strategic planning and corporate policy, and Corporate Staff, which provides functional support to FFMC's other operating units in finance, tax, planning, purchasing, accounting, internal audit, and human resources.

- As of December 31, 1986, FFMC had 1,230 employees, segmented as follows:

Direct sales and servicing	43
Customer service	175
Operations	766
Software development/maintenance	170
Administrative	76
	1,230

  - The company currently has approximately 1,260 employees.

- FFMC's competitors generally vary by regional area. Major competitors to FFMC, by product area, include the following:

  - Bank services: MTech and Systematics.

  - Thrift services: Fiserv and Gesco.

KEY PRODUCTS AND SERVICES

- Approximately 89% ($62.1 million) of FFMC's 1986 revenue was derived from processing services, 9% ($6.3 million) from equipment sales, and 2% ($1.2 million) from other income, primarily interest income.

- A three-year summary of source of revenue, as provided by FFMC, follows ($ millions):

Fiscal Year / Item	1986		1985		1984	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Processing service fees	$62.1	89%	$43.6	83%	$29.1	81%
Equipment sales	6.3	9	8.1	16	5.9	17
Other income	1.2	2	0.7	1	0.9	2
Total	$69.6	100%	$52.4	100%	$35.9	100%

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- The processing and related services and delivery systems provided by the Bank Services Division are designed to permit a customer's use of FFMC's services to grow from a minimum group of services using batch delivery of information, to an FFMC processing center, to a range of services using an on-line central information file and in-bank delivery systems.

  - The processing services currently provided by the Bank Services Division include deposit, loan, financial accounting, credit card processing, and delivery systems, as follows:

    - Deposit Systems. This group of services includes separate systems for demand deposit accounts, savings accounts, and certificates of deposit, and also a combined deposit system. Each system may be used separately, and the systems for demand deposit and savings accounts may be used together through the combined deposit system. Each system performs all processing related to the particular account and provides income and expense control reports, audit controls, and marketing and customer services features, such as sequential and descriptive statements.

    - Loan Systems. The loan systems include systems for installment loans, commercial loans, financial leases, and lines of credit. The emphasis in these systems is on flexibility and control. Each system provides for various methods of calculating interest and delinquency charges, automatic late payment notices, and delinquency and non-accruing loan reports to management.

    - Financial Systems. The financial systems include some services used internally by the financial institutions serviced by FFMC and others that the financial institutions use to provide services to their customers. Included are general ledger, fixed assets, corporate analysis, account reconciliation, and payroll systems, as well as an on-line insurance premium financing system.

    - Credit Card System. The ONLY BI[T.M.] Credit Card system first introduced in late 1983 is an on-line system which allows FFMC to provide processing for MasterCard, VISA, Gold Card, private label cards, VIP bank cards, and if desired, debit cards. FFMC has over 140,000 cardholders and over 10,000 merchants on this system. This system can be used through both the Bank Services and Thrift Services Divisions.

    - Delivery Systems. FFMC has developed and operates delivery systems using ground couriers, high-speed data transmission, remote input/output centers, a proof of deposit system, in-bank MICR capture devices, in-bank data entry, on-line teller machines, ATM interchanges, an on-line central information file, and an automated electronic clearinghouse function.

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- Batch processing requires the customer bank to prepare and deliver by ground courier data input to one of FFMC's centers. FFMC then processes the data and prepares printed reports which are delivered back to the customer, usually the next day.

- The customer can install an in-bank MICR capture device that will capture data for transmission to FFMC, install an in-bank remote printer to receive output directly from FFMC on-line, or do both.

- If a customer has on-line equipment, output resulting from batch processing can be accessed through CRTs and teller machines instead of relying entirely on the printed reports.

- An institution desiring a fully automated delivery system can install an automated central information file (CIF) system, which allows the institution to link all of a customer's relationships and provides coordinated access to all of his accounts. FFMC also receives VISA and MasterCard account information that may be linked to the customer's CIF record. An automated CIF system is an integral part of installing ATMs.

- FFMC also offers a microcomputer-based system which follows FFMC's marketing strategy of offering products and systems that can grow with the customer at the rate desired. This system is available in a basic configuration with minimal hardware and selected software.

  . It can be expanded to add capacity and processing power with a range of software packages and also can be connected to FFMC's processing service, thereby permitting communication between the customer and FFMC's central computers.

  . In addition, various lobby and platform automation products are available to allow bank personnel access to a data base of all customer accounts.

- FFMC's Bank Services and Thrift Services Divisions participate in 22 regional or national ATM networks in 40 states. Included in these are three proprietary networks in which an FFMC customer with on-line ATMs may participate (Georgia Express®, Alabama Express®, and, in Florida, Express Banker™). Subject to state law restrictions applicable to Florida institutions, these systems allow an institution to participate in various regional ATM networks, including the networks operated exclusively for FFMC's customers.

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- There are approximately 180 financial institutions served by FFMC through all 22 ATM networks in which FFMC participates, including 62 banks currently involved in the FFMC proprietary interchange networks.

- The networks of which FFMC is a member through its Bank Services Division include the Georgia Interchange Network (AVAIL T.M.) and the Florida Interchange Group (HONOR T.M.). FFMC also is a processor in the ALERT T.M. network, which became operational during March 1986 and links approximately 400 ATM locations in Alabama.

- In addition, FFMC is a member of a number of ATM neworks through its Thrift Services Division.

• The Thrift Services Division provides processing services and related products to savings and loan institutions. Its operations support over 7,000 terminals installed in customer locations throughout the U.S. The division also provides special programming and equipment leasing services to its customers.

  - The on-line applications available currently include savings programs, items processing, pre-authorized payments and deposits, mortgage loans, loans to process, household product penetration data, installment loans, utility programs, timesharing for management decisionmaking, commercial loans, NOW accounts, customer information file (CIF), general ledger, commitment loans, and asset/liability management programs.

  - FFMC expects that the volume of transactions processed through electronic funds transfer (EFT) will increase. The company is able to provide software and hardware, along with data communications and reconciliation services, necessary to support debit card transaction processing. These services will be accessible to both Thrift Services and Bank Services Division customers.

  - The Thrift Services Division provides a fully operational, 24-hour/7-day-a-week, realtime EFT transaction authorization and switching system.

    - Its system interfaces to ATM networks including THE EXCHANGE and Plus System national networks, as well as several regional networks, including minibank T.M. , INSTANT CASH, Instant Teller T.M., Rocky Mountain Bank Card System ®, and pulse T.M..

      - The In Nevada Nework (INN T.M.) and BankMate networks were recently added, and service offered to minibank cardholders was expanded by allowing access to the national CIRRUS ® network. During 1986, the Kansas Electronic Transfer System (KETS) network was also added.

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  - The number of ATM transactions processed by the division increased 36% during 1986.

  - The division continues to expand the number of ATM devices it supports. Currently, it supports hardware manufactured by Diebold, Docutel, Fujitsu, IBM, and NCR.

- As the financial services industry continues to expand its use of EFT systems, FFMC is upgrading its EFT processing capabilities to meet future demands, such as point-of-sale and home banking. These services will be made available to customers of both Thrift Services and Bank Services Divisions.

- Each processing customer enters into a servicing agreement providing for an initial term ranging from one to five years. The fee for each service is usually based on the number of transactions handled and accounts maintained by FFMC during each month, with a minimum monthly charge for each service, regardless of volume.

  - Since 1984, most new service agreements provide for an initial term of three to five years and are renewable for a like term unless terminated upon three to six months notice by either party prior to expiration of the current term.

  - Approximately 13% of FFMC's existing customers (most of whom became customers before 1984) still have service agreements which had an initial term of one year and now continue in effect unless terminated upon three to six months notice by either party.

- FFMC sells and leases equipment for use in conjunction with its various processing services. Equipment marketed by FFMC includes teller machines, CRTs, printers, in-bank MICR capture devices, peripherals, and ATMs.

INDUSTRY MARKETS

- One hundred percent of FFMC's 1986 revenue is derived from the banking and finance industry.

- FFMC's customers range in size from newly chartered institutions with a minimum of required capital to institutions with over $6 billion in assets. To date, most of FFMC's customers have been financial institutions with assets of less than $1 billion.

- Since 1981, no single customer has generated more than 3% of FFMC's revenue during one year, except for First Union (FFMC's former parent), which accounted for 22%, 26%, and 30% of 1986, 1985, and 1984 revenue, respectively.

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- FFMC also provides services to the FDIC for processing and handling loans acquired by the FDIC when it takes over the assets of banks in financial difficulty. FFMC currently provides these services to the FDIC in 15 states.

GEOGRAPHIC MARKETS

- One hundred percent of FFMC's 1986 revenue was derived from the U.S.

- FFMC has customers in 40 U.S. states and operates 36 data centers nationwide. Data centers are located in Montgomery (AL); San Diego (CA); Denver (CO); Dania and Miami (FL); Albany, Atlanta, Augusta, Columbus, Moultrie, Rome, and Savannah (GA); Altamont, Bloomington, Elk Grove Village, Lombard, Marion, and Pontiac (IL); Wichita (KS); Somerset (KY); Westborough (MA); Kansas City (MO); Piscataway (NJ); Pittsburgh; and Kingsport, Knoxville, Memphis, and Nashville (TN).

COMPUTER HARDWARE

- FFMC's 36 data centers nationwide have a total of over 80 mainframe systems installed. Approximately 60% of FFMC's customers are served via Unisys hardware. FFMC also uses IBM and NCR systems to serve its customers.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

May 1995

FIserv, Inc.

Chairman & CEO: George D. Dalton
Vice Chairman, President & COO: Leslie M. Muma
255 FIserv Drive
Brookfield, WI 53045
Phone: (414) 879-5000
Fax: (414) 879-5275

Status:	Public
Employees:	6,195 (12/94)
Revenue:	$563,590,000
Fiscal Year End:	12/31/94

Key Points

- FIserv believes that it is the largest processor of accounts for the nation's savings institutions and ranks among the leaders in account processing for banks and credit unions.
- FIserv's aggressive acquisition strategy, in part a defense against consolidation in the banking industry, has significantly contributed to an increase in the company's data processing client base to more than 2,500 financial institutions nationwide and has helped boost revenues from approximately $22 million in 1984 to nearly $564 million in 1994.

Company Description

FIserv provides a range of processing and network services, systems operations and applications software products to banks, credit unions, mortgage banks, savings institutions and other financial intermediaries.

- Full-service account and transaction processing is available via processing services, systems operations and in-house software.
- Electronic banking (ATM/EFT) services for financial institutions driving more than

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4,000 ATM/POS devices and processing approximately 150 million transactions annually. FIserv also provides access to 122 national and major regional ATM and POS networks.

- Check and share draft remittance and back-office processing is handled through FIserv's 30 regional item processing centers.

- Through its various subsidiaries, FIserv also provides trust administration services for IRAs and other retirement plans; educational services and microcomputer software for asset/liability management; marketing communications and graphic design services; design, inventory and delivery of industry-specific business forms; plastic card products and services; and disaster recovery services.

FIserv currently operates data processing and information management product centers, software system development centers, and item processing and back-office support centers in more than 60 cities throughout the U.S. (with international offices in London and Singapore). The company also has employees under systems operations contracts managing client data centers in multiple locations nationwide.

Organization and Structure

Headquartered in Brookfield (WI), FIserv is made up of three main groups:

- *Savings and Community Bank Group*—This group provides service bureau processing services for savings and community banks, and item processing services for all FIserv clients in the U.S. The group is further comprised of six business units aligned by regional markets.

The business units are as follows:

- Western Region
- SouthWest Region
- Midwest Region
- Central Region
- Eastern Region
- Northeast Region

- *Bank and Credit Union Group*—This group offers service bureau processing services, in-house systems software and outsourcing services to national and international banks, mortgage banks and credit unions. It consists of the following business units:

  - Bank Services Sector
  - Computer Services Sector
  - Credit Union Sector
  - Data-Link Mortgage Banking Systems
  - Government Services and Specialized Outsourcing
  - Electronics Funds Transfer Services
  - Bank Link Cash Management Systems

- *Industry Products and Services Group*—This group includes FIserv companies that handle products and services marketing to clients within FIserv's Corporate Groups and to clients within the various vertical markets the company serves.

It includes:

- Cadre, Inc. Disaster Recovery
- Communications Design
- DataPro Card Services
- FIserv Human Resource Information Services
- FIserv Image Integration Technology
- National Embossing Company

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- RECOM Network Installation/Integration
- Sendero Financial Risk Management and Decision Support Systems

FIserv provides specialized account processing, administration and trusteeship of self-directed IRAs, retirement plans and custodial plans through its Denver (CO)-based subsidiary—First Trust Corporation.

FIserv domestic locations are in Arlington Heights, Chicago, Marion, and Pontiac (IL); Atlanta (GA); Avon and New Haven (CT); Beaumont, Dallas, Houston, and San Antonio (TX); Boston, Medford, and Somerville (MA); Bowling Green (KY); Brookfield and Milwaukee (WI); Cincinnati and Cleveland (OH); Corvallis and Portland (OR); Costa Mesa, Fresno, Glendale, Los Angeles, Riverside, Sacramento, San Diego, San Leandro, and Santa Clara (CA); Davenport (IA); Denver and Englewood (CO); Fargo (ND); Flint and Troy (MI); Hartford and New Haven (CT); Honolulu (HI); Indianapolis (IN); Knoxville, Memphis and Nashville (TN); Little Rock (AR); Minneapolis and St. Paul (MN); New Orleans (LA); New York (NY); Oklahoma City (OK); Clearwater, Orlando, Tampa and Titusville (FL); Phoenix and Scottsdale (AZ); Pittsburgh (PA); Seattle and Spokane (WA); and Sioux Falls (SD).

International offices are in London and Singapore.

Company Strategy

Since its formation in 1984, FIserv has expanded its operations through more than 50 acquisitions and internally through the growth of existing clients, development and cross-selling of new services and products, and by attracting new clients.

FIserv seeks to capitalize on the trends in the banking and finance industry towards outsourcing, economies of scale in data processing operations and diminishing competition from smaller, local and regional third-party processors and financial institutions previously providing third-party processing.

The company has implemented a strategy to continue to develop new products, improve the cost effectiveness of services provided to clients, aggressively solicit new clients and make strategic acquisitions.

Financials

FIserv's 1994 revenue reached $563.6 million, a 24% increase over 1993 revenue of $454.7 million. Net income rose 23%, from $30.7 million in 1993 to $37.7 million in 1994.

A five-year financial summary appears on the following page.

Approximately 80% of the growth in 1994 revenue was attributed to the inclusion of revenues from acquisitions.

FIserv invests approximately 10% of its revenue on research and development, of which about half is used for software development.

Revenue Analysis by Product/Service

INPUT estimates that FIserv's revenue is derived as follows:

Processing Services/Systems Operations	92%
Applications Software	8%
Total	100%

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FIserv, Inc.
Five-Year Financial Summary
($ Millions, except per share data)

Item	Fiscal Year				
	12/94	12/93	12/92	12/91	12/90
Revenue	$563.6	$454.7	$332.1	$281.3	$183.2
• Percent change from previous year	24%	37%	18%	54%	12%
Income (loss) before taxes	$62.8	$50.0	$37.1	$28.7	$21.5
• Percent change from previous year	26%	35%	29%	33%	16%
Net income (loss)	$37.7	$30.7	$23.0	$18.3	$13.8
• Percent change from previous year	23%	33%	25%	33%	21%
Earnings (loss) per share (a)	$0.95	$0.80	$0.67	$0.56	$0.47
• Percent change from previous year	19%	19%	19%	18%	18%

(a) Restated to reflect a 3-for 2 stock split effective May 1993, June 1992 and July 1991.

Interim Results

Revenue for the three months ending March 31, 1995 was $152.6 million, compared to $135.9 million for the same period in 1994. Net income for the period was $10.4 million, compared to net income of $8.7 million for the same period a year ago.

Market Financials

One hundred percent of FIserv's revenue is derived from the banking and finance industry.

FIserv has a total of more than 5,000 financial institution clients, including savings and loans, savings banks, credit unions, mortgage banks, commercial banks, securities firms, financial planners, finance companies, building societies, and international banks.

Geographic Markets

An estimated 95% of FIserv's 1994 revenue was derived from the U.S., with the remaining 5% being derived from primarily from Europe, the U.K., Asia-Pacific and Latin America.

FIserv currently has more than 200 clients outside the U.S. in more than 50 countries.

Acquisitions

FIserv has made more than 50 acquisitions since its inception. Acquisitions made since 1992 include the following:

- In May 1995, FIserv completed its acquisition of Information Technology, Inc. (ITI). ITI, with annual revenue of approximately $115 million, is involved in the design, development, delivery, installation and support of banking software and related services.
- In December 1994, FIserv acquired RECOM Associates, Inc. of Tampa (FL). RECOM provided office automation and communication network integration services to the financial marketplace.

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- In November 1994, FIserv acquired the Imaging Technology Banking Unit of Cincinnati Bell Information Systems (CBIS) based in Maitland (FL). CBIS provided image and document management solutions to financial institutions and other industries.

- In August 1994, FIserv acquired Federal Home Loan Bank (FHLB) of Atlanta (GA). FHLB provided item processing services that complement FIserv's existing item processing operations.

- In May 1994, FIserv completed its acquisition of Boatmen's Information Systems (BIS) of Des Moines (IA). BIS provided data processing services to banks in Iowa.

- In April 1994, FIserv acquired National Embossing Company, Inc. (NEC) of Houston (TX). NEC provided plastic cards and card issuance services for the financial, healthcare and telecommunications industries.

- In November 1993, acquired Data-Link Systems of South Bend (IN). Data-Link provided data processing services.

- In November 1993, FIserv acquired Financial Institutions Outsourcing (FIO) of Pittsburgh (PA). FIO provided data processing services.

- In November 1993, FIserv acquired Financial Data Systems (FDS) of Jacksonville (FL). FDS provided item processing services.

- In November 1993, FIserv acquired Financial Processors, Inc., of Miami (FL). Financial Processors provided data processing and related information management services.

- In July 1993, FIserv acquired Data Line Service Company of Covina (CA). Data Line, with approximately 250 employees, provided data processing and related information management services to more than 40 financial institutions, supporting more than 500 branch offices throughout California.

- In June 1993, FIserv completed the acquisition of Datatronix Financial Services, a San Diego-based provider of item processing services. Datatronix, with over 300 employees and data centers in San Diego, Costa Mesa, Glendale, Riverside, and San Leandro (CA), had approximately 140 financial institution clients throughout California.

- In April 1993, FIserv purchased certain item processing contracts from EDS.

- In March 1993, FIserv acquired certain assets of IPC Service Corporation, a Denver-based provider of item processing services. IPC performed complete backroom item processing and data processing services to more than 20 financial institutions located throughout the state of Colorado.

- In February 1993, acquired Basis Information Technologies, Inc., a wholly owned subsidiary of First Financial Management Corporation, for $96.5 million in cash and FIserv stock. Basis, with more than 1,000 employees and 1992 revenue of approximately $100 million, provided processing services to more than 1,000 financial institutions with customer accounts in 47 states.

Employees

As of December 31, 1994 FIserv had approximately 6,195 employees.

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Key Products and Services

FIserv's data centers provide full-service processing for more than 42 million on-line accounts. FIserv provides full-savings account and transaction processing solutions for approximately 400 savings institutions, 980 banks and 950 credit unions.

FIserv's ongoing processing support products and services include:

- Relationship banking capabilities
- Loan and deposit products
- Multibranch and multicompany financial accounting
- Transaction processing
- Management information systems
- Platform and teller automation
- Customer profitability
- Mortgage banking
- Accounts payable
- Asset/liability management
- Investment accounting and analysis
- Safe deposit box accounting
- Customized data base extracts and reports
- Remote printing and optical disk systems
- ATM, POS, and ACH financial accounting
- Item processing and image integration
- Installation services
- Ongoing client services
- Research and development
- Disaster recovery and contingency planning services
- Regulatory compliance
- Multiple terminal support
- Plastic card products and services

FIserv provides a combination of transaction processing and information management products and services for financial institutions—the FIserv Service Dimension—that includes:

- A nationwide service bureau network of specialized data centers and remote-service centers electronically linked with land-based and/or satellite telecommunications systems to manage transaction processing on-line to the FIserv data center from each client's main office or multiple branch or ATM locations

- Systems operations (facilities management and resource management) services using FIserv applications or customized systems on multiple hardware platforms either at the client's site or in a FIserv facility

- In-house software systems on multiple hardware platforms designed specifically for banks, credit unions, and savings institutions

- International retail banking in-house software systems featuring multicurrency and multilingual capabilities to meet country-specific information processing needs

- Specialized item processing and back-office operations centers located throughout the U.S. with in-clearing services, statement rendering, and lockbox and return-item distribution sites for checks, share drafts, money orders, and other financial items

- Specialized service centers for the Resolution Trust Corporation, FDIC, and other agencies for regional loan servicing and processing, as well as systems operations, total institution management services, and other support

- Electronic banking services, including EFT, ATM/POS switching, driving, and settlement services interfacing with all

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major networks (FIserv Electronic Banking Services)

- The Sendero Development Center and Institute, for education and training among financial institutions worldwide on the implementation of processes for measuring and managing interest rate risk using software modeling technology

- First Trust Center for account processing, fund administration and trusteeship of individual or business self-directed retirement plans, and assisting financial representatives and other financial service intermediaries in managing information through proprietary data base technology

- Forms and supplies support centers, with services ranging from providing marketing communications planning and programs to the design, production, inventory analysis, warehousing, and maintenance of custom-printed business forms and supplies

- Plastic card products and services that provide debit and credit, ATM and identification/membership cards (including card protectors and card carriers, to financial institutions and other organizations

- Disaster recovery services provide a fully-equipped standby recovery operations center with hardware, software, and telecommunications

- Education and training services in multiple mainframe, mini, micro, or PC-based/LAN network technologies specifically with financial institution operating environments

While most clients contract to obtain all or a majority of their processing requirements from FIserv, the modular design of the company's software allows a client to start with one application and gradually add applications and features as needed.

FIserv supports a range of computers and terminals and other client-owned peripheral devices manufactured by multiple leading vendors.

Clients

Examples of recent contracts include the following:

- In May 1995, Old Point National Bank selected FIserv's products and services including a branch environment based on client/server technology, the CBS Voice Response System and the PS Teller system. Data processing services will be provided by FIserv's CBS center located in Orlando (FL).

- First Capital Bank of Norcross (GA) has signed an agreement with FIserv, whereby FIserv will provide comprehensive financial data processing services and will install software from Information Technology, Inc.

- Carnegie Savings Bank of Carnegie (PA) has agreed for FIserv to handle its financial data processing needs and will utilize ongoing service and support from the FIserv data processing center in Pittsburgh (PA).

- The FIserv item processing center in Chicago (IL) agreed to provide item processing services to Standard Federal Bank of Chicago.

- FIserv's data processing center in Bowling Green (KY) will provide financial data processing services to the First State Bank in Tell City (IN). The agreement calls for

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FIserv to provide advanced technology and expert support to First State Bank.

- FIserv will provide financial data processing and item processing services to Citizens 1st Bank in Rusk (TX). With the agreement, Citizens 1st Bank is bringing its data processing function online through FIserv's data processing center in Houston (TX).

- FIserv has agreed to handle the financial data processing needs for Harvest Land Cooperative of Morgan (MN). Harvest Land Cooperative will use applications software from Information Technology, Inc., to which FIserv applies its processing services.

- The Bank of Darien in Darien (CT) has chosen FIserv to handle its customer statement laser printing and statement rendering needs. The laser statement services will be provided through the FIserv item processing services in New Haven (CT).

- Randall-Story State Bank of Story City (IA) and Commercial Savings Bank of Carroll (IA) have selected FIserv to provide and support online services. The services will be provided through FIserv's data center in Des Moines (IA).

- Clovis Community Bank has selected a range of FIserv's products and services including a branch environment based on client/server technology, a LAN/WAN optical system, item processing services and the FIserv FAST for Windows branch automation software. The bank is bringing its data processing functions online with the FIserv Comprehensive Banking System (CBS) service bureau solution.

- In addition to the standard account processing services, First Federal Lincoln has agreed to utilize a range of FIserv's ancillary services, including LoanPro, Collection Manager, End User Computing, the FIserv Enterprise Information System and ClientVISION.

Marketing and Sales

FIserv offers clients a selection of data processing solutions designed to meet the specific needs of financial institutions.

The company provides ongoing client service and support and the FIserv Client Support and Account Management staff is responsible for the day-to-day interface with the operations of clients.

FIserv operates centers nationwide for full service financial data processing, software system development, item processing and check imaging, multiple technology support and related businesses. International support centers are in London, England and Singapore.

FIserv offers training and technical support at its data centers as well as at customer sites. The company maintains demonstration and training facilities at its data centers, containing equipment used in the delivery of services.

Alliances

Under the FIserv Service Partner program, various third-party software and other products are made available to FIserv clients. FIserv currently has Service Partner support programs with virtually every leading third-party provider preferred by its client base.

FIserv, as a leading systems integrator with the Resolution Trust Corporation (RTC) and other government service organizations

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within the financial industry, structures joint ventures or "virtual corporations" on behalf of its clients.

- These alliances combine core competencies in hardware, generating software, functional application systems, networks, data management, and end-user computing, along with dedicated human resources.
- FIserv resources are currently being applied in multiple joint venture agreements with operations in major cities through out the U.S.

Competition

Major competitors in the processing area currently include AT&T GIS, Alltel Information Services and Electronic Data Systems (EDS). Other competitors include various regional firms.

INPUT Assessment

FIserv's major strengths include:

- Financial strength
- Diversified client base
- Extensive product portfolio

Challenges for the company over the coming year include:

- Responding to the increasing demand
- Maintaining a high level of service quality

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FISERV, INC.

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Chairman & CEO:	George D. Dalton
President & COO:	Leslie M. Muma
Status:	Public Corporation
Stock Exchange:	NASDAQ
Total Employees:	5,000 (6/93)
Total Revenue:	$332,090,000
Fiscal Year End:	12/31/92

Key Points

- FIserv believes that it is the largest processor of accounts for the nation's savings institutions and ranks among the leaders in account processing for banks and credit unions.
- FIserv's aggressive acquisition strategy, in part a defense against consolidation in the banking industry, has significantly contributed to an increase in the company's client base to over 5,400 financial institutions nationwide and helped to boost revenues from $22 million in 1984 to over $332 million in 1992.
- In early 1993, FIserv finalized the acquisition of the bank data processing operations of one of its largest competitors--First Financial Management Corporation.
- The acquisition of Datatronix in June 1993 further strengthens FIserv's market position on the West Coast.
- FIserv has expanded the availability of its Comprehensive Banking System (CBS) as a service bureau offering. CBS was previously available only for in-house use.
- FIserv has introduced a professional services program for its credit union clients, offering technology seminars, onsite training, operation audits, and similar services.

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Company Description

FIserv provides a range of processing and network services, systems operations, and applications software products to banks, credit unions, mortgage banks, savings institutions, and other financial intermediaries.

- Full-service account and transaction processing is available via processing services, systems operations, and in-house software.
- Electronic banking (ATM/EFT) services for financial institutions drive and switch over 2,000 ATMs and process approximately 15 million ATM transactions monthly. FIserv also services more than 70,000 ATMs with shared access, while providing access to all national and major regional networks.
- Check and share draft remittance and back-office processing is handled through FIserv's 33 regional item processing centers.
- Through its various subsidiaries, FIserv also provides trust administration services for IRAs and other retirement plans; educational services and microcomputer software for asset/liability management; marketing communications and graphic design services; design, inventory, and delivery of industry-specific business forms; plastic card products and services; and disaster recovery services.

FIserv currently operates over 70 data processing and information management product centers, software system development centers, and item processing and back-office support centers in over 50 cities throughout the U.S. (with international offices in London and Singapore). The company also has employees under systems operations contracts managing client data centers in multiple locations nationwide.

In May 1993, FIserv announced a public offering of 3.85 million shares of its common stock, of which 1.4 million shares are being offered by the company and the remainder by selling shareholders. Estimated net proceeds to the company of $23.5 million will be used for general corporate purposes. FIserv previously made public stock offerings in May 1991 and September 1986.

Strategy

Since its formation in 1984, FIserv has expanded its operations through over 40 acquisitions and internally through the growth of existing clients, development and cross-selling of new services and product, and attraction of new clients.

FIserv seeks to capitalize on trends in the banking and finance industry towards outsourcing, economies of scale in data processing operations,

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and diminishing competition from smaller, local and regional third-party processors and financial institutions previously providing third-party processing.

The company has implemented a strategy to continue to develop new products, improve the cost effectiveness of services provided to clients, aggressively solicit new clients, and make strategic acquisitions.

Financials

FIserv's 1992 revenue reached $332.1 million, an 18% increase over 1991 revenue of $281.3 million. Net income rose 25%, from $18.3 million in 1991 to $23.0 million in 1992. A five-year financial summary follows:

FISERV, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	1992	1991	1990	1989	1988
Revenue	$332.1	$281.3	$183.2	$164.0	$125.0
· Percent increase from previous year	18%	54%	12%	31%	N/A
Income before taxes	$37.1	$28.7	$21.5	$18.5	$15.1
· Percent increase from previous year	29%	33%	16%	23%	N/A
· Gross margin	11%	10%	12%	11%	12%
Net income	$23.0	$18.3	$13.8	$11.4	$9.2
· Percent increase from previous year	25%	33%	21%	24%	N/A
· Net margin	7%	7%	8%	7%	7%
Earnings per share (a)	$0.67	$0.56	$0.47	$0.40	$0.33
· Percent increase from previous year	19%	18%	18%	21%	N/A

(a) Restated to reflect a 3-for-2 stock split effective April 25, 1993.

FIserv experienced a significant increase in revenue in 1991 and 1992 as a result of the acquisition of Citicorp Information Resources in April 1991. Revenues resulted primarily from the sale of processing services to financial institutions, software sales, and administration of self-directed retirement plans.

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FIserv has consistently dedicated approximately 10% of its total revenue annually to research and development.

Revenue for the three months ending March 31, 1993 reached $99.7 million, a 23% increase over $81.3 million for the same period in 1992. Net income rose 24%, from $5.5 million to $6.8 million.

Acquisitions

FIserv has made over 40 acquisitions since its inception. Acquisitions made since 1990 include the following:

- In July 1993, FIserv finalized the acquisition of Data Line Service Company of Covina (CA). Data Line, with approximately 250 employees, provides data processing and related information management services for over 40 financial institutions, supporting over 500 branch offices throughout California.

- In June 1993, FIserv completed the acquisition of Datatronix Financial Services, a San Diego-based provider of item processing services. Datatronix, with over 300 employees and data centers in San Diego, Costa Mesa, Glendale, Riverside, and San Leandro (CA), has approximately 140 financial institution clients throughout California.

- In April 1993, FIserv agreed to purchase certain item processing contracts from EDS.

- In March 1993, FIserv acquired certain assets of IPC Service Corporation, a Denver-based provider of item processing services. IPC performs complete backroom item processing and data processing services to more than 20 financial institutions located throughout the state of Colorado.

- In February 1993, FIserv completed the acquisition of Basis Information Technologies, Inc., a wholly owned subsidiary of First Financial Management Corporation, for $96.5 million in cash and FIserv stock. Basis, with more than 1,000 employees and 1992 revenue of approximately $100 million, provides processing services to more than 1,000 financial institutions with customer accounts in 47 states.

- In December 1992, FIserv acquired Bank Group Services, Inc. of Medford (MA). Bank Group provides a range of item processing services to 32 financial institutions in Maine, Massachusetts, and New Hampshire. Its operations have been merged into FIserv Boston.

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- In December 1992, FIserv acquired Dakota Data Processing, Inc., a data processing and microfiche services subsidiary of First Bank System of Minneapolis. Dakota, with 13 employees at the time of the acquisition and 1991 revenue of $1.3 million, provides services to approximately 40 financial institutions and related business in the Fargo (ND) area. Dakota now operates as a FIserv location in Fargo.

- In October 1992, FIserv acquired REALM, Chase Manhattan Bank's asset/liability management simulation software product. FIserv's Sendero subsidiary is providing support for more than 100 clients in 35 countries worldwide currently using this product.

- In July 1992, FIserv acquired Performance Analysis, Inc., a provider of interest rate risk analysis, compliance, and business plan development reporting to financial institutions. These operations are now part of FIserv's Sendero subsidiary and are marketed as Performance Analysis by Sendero.

- In July 1992, FIserv acquired Cadre, Inc. of Avon (CT), a specialized provider of disaster recovery services.

- In March 1992, FIserv acquired First American Information Services, Inc. (FAIS) of St. Paul (MN) from Bremer Financial Corp. FAIS provides processing services to Bremer's 19 member banks. The acquisition expanded FIserv's bank data processing and item processing operations in the Greater Midwest. It now operates as FIserv St. Paul.

- In February 1992, FIserv acquired certain assets of BMS On-Line Services, Inc. of Medford (CT). BMS On-Line provides processing services to financial institutions in the New England area.

- In February 1992, FIserv acquired DataPro Automated Card Services, Inc. of Indianapolis (IN), a provider of plastic card products and services. The acquisition complements FIserv's existing ATM, POS, and related card management services. This unit now operates as FIserv DataPro Card Services.

- In November 1991, FIserv acquired the item processing and related service operations of the Federal Home Loan Bank of Chicago (IL). The business now operates through FIserv Milwaukee as a remote site in Chicago.

- In May 1991, FIserv acquired the item processing business of the Federal Home Loan Bank in Dallas (TX) and facilities in Dallas, Houston, Little Rock, and New Orleans.

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- In April 1991, FIserv purchased the principal financial data processing units of Citicorp Information Resources, Inc. (CIR) from Citicorp.
  - CIR had 1990 revenue of approximately $75 million, 700 employees, and over 500 clients.
  - The seven business units of CIR involved in the agreement expanded FIserv's outsourcing capabilities and added applications software products, systems operations services, and professional services consulting for the financial services industry.
- In April 1991, FIserv acquired BMS Processing, Inc. (with 80 clients and 1990 revenue of $4 million) and a 48% equity interest in BMS On-Line Services, Inc. (with 17 clients and 1990 revenue of $4 million) and its wholly owned subsidiary, BMS Management Services, Inc.

Alliances

Under the FIserv Service Partner program, various third-party software and other products are made available to FIserv clients. FIserv currently has Service Partner support programs with virtually every leading third-party provider preferred by its client base.

FIserv, as a leading systems integrator with the Resolution Trust Corporation (RTC) and other government service organizations within the financial industry, structures joint ventures or "virtual corporations" on behalf of its clients.

- These alliances combine core competencies in hardware, generating software, functional application systems, networks, data management, and end-user computing, along with dedicated human resources.
- FIserv resources are currently being applied in multiple joint venture agreements with operations in Atlanta, Chicago, Dallas, Denver, Frederick (MD), Kansas City (MO), Newport Beach (CA), Phoenix, San Antonio, Seattle, Tampa, and Washington, D.C.

Employees

As of December 31, 1992, FIserv had approximately 3,772 employees. The company currently has over 5,000 employees.

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Competitors

Major competitors in the processing area currently include NCR and Electronic Data Systems (EDS). Other competitors include various regional firms.

Key Products and Services

As of March 31, 1993, FIserv's data centers and in-house systems provided full-service processing for over 50 million on-line accounts at approximately 400 savings institutions, 980 banks, and 950 credit unions.

FIserv's ongoing processing support products and services include:

- Relationship banking capabilities
- Loan and deposit products
- Multibranch and multicompany financial accounting
- Transaction processing
- Management information systems
- Platform and teller automation
- Customer profitability
- Mortgage banking
- Accounts payable
- Asset/liability management
- Investment accounting and analysis
- Safe deposit box accounting
- Customized data base extracts and reports
- Remote printing and optical disk systems
- ATM, POS, and ACH financial accounting
- Regional item processing
- Installation services
- Ongoing client services
- Research and development
- Disaster recovery and contingency planning services
- Regulatory compliance
- Multiple terminal support
- Consulting
- Plastic card products and services

FIserv provides a combination of transaction processing and information management products and services for financial institutions--the FIserv Service Dimension--that includes:

- A nationwide service bureau network of specialized data centers and remote-service centers electronically linked with land-based and/or satellite telecommunications systems to manage transaction processing on-line to the FIserv data center from each client's main office or multiple branch or ATM locations

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- Systems operations (facilities management and resource management) services using FIserv applications or customized systems on multiple hardware platforms either at the client's site or in a FIserv facility

- In-house software systems on multiple hardware platforms designed specifically for banks, credit unions, and savings institutions

- International retail banking in-house software systems featuring multicurrency and multilingual capabilities to meet country-specific information processing needs

- Specialized item processing and back-office operations centers located throughout the U.S. with in-clearing services, statement rendering, and lockbox and return-item distribution sites for checks, share drafts, money orders, and other financial items

- Specialized service centers for the Resolution Trust Corporation, FDIC, and other agencies for regional loan servicing and processing, as well as systems operations, total institution management services, and other support

- Electronic banking services, including EFT, ATM/POS switching, driving, and settlement services interfacing with all major networks (FIserv Electronic Banking Services)

- The Sendero Development Center and Institute, for education and training among financial institutions worldwide on the implementation of processes for measuring and managing interest rate risk using software modeling technology

- First Trust Center for account processing, fund administration and trusteeship of individual or business self-directed retirement plans, and assisting financial representatives and other financial service intermediaries in managing information through proprietary data base technology

- Forms and supplies support centers, with services ranging from providing marketing communications planning and programs to the design, production, inventory analysis, warehousing, and maintenance of custom-printed business forms and supplies

- Plastic card products and services that provide debit and credit, ATM and identification/membership cards (including card protectors and card carriers, to financial institutions and other organizations

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- Disaster recovery services provide a fully-equipped standby recovery operations center with hardware, software, and telecommunications

- Education and training services in multiple mainframe, mini, micro, or PC-based/LAN network technologies specifically with financial institution operating environments

While most clients contract to obtain all or a majority of their processing requirements from FIserv, the modular design of the company's software allows a client to start with one application and gradually add applications and features as needed.

FIserv supports a range of computers and terminals and other client-owned peripheral devices manufactured by multiple leading vendors, including Unisys, NCR Corporation, IBM, ISC Systems Corporation, and Data General.

Clients

A summary of recent client contracts awarded to FIserv is shown in the exhibit.

COMPANY NAME	DATE	DESCRIPTION
Century South Banks (GA and TN)	4/93	Resource management
Harbor Bank (Long Beach, CA)	3/93	Check remittance processing
Odenton Federal Savings & Loan (Cleveland, OH)	3/93	Full-service on-line processing
Bank of North Texas, N.A. (Dallas, TX)	3/93	On-line processing
Trumbull Savings & Loan (Warren, OH)	1/93	On-line processing
National Bank and Trust Company (Norwich, NY)	1/93	Comprehensive Banking System (CBS) service bureau processing
First State Bank of Southern California	1/93	CBS service bureau processing
Security Bank (TX)	12/92	On-line processing, item processing, and back-office services
Western Washington Bankcorp (Seattle, WA)	12/92	Resource management
Christina Bank Og (Seattle, WA)	12/92	Resource management

Industry Markets

One hundred percent of FIserv's revenue is derived from the banking and finance industry.

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Clients include savings and loans, savings banks, credit unions, mortgage banks, commercial banks, securities firms, financial planners, finance companies, building societies, and international banks.

Geographic Markets

Approximately 95% of FIserv's 1992 revenue was derived from the U.S., with the remaining 5% being derived from primarily from Europe, the U.K., Asia-Pacific, and Latin America.

FIserv currently has over 200 clients outside the U.S. in approximately 45 countries.

FIserv domestic locations are in Arlington Heights, Chicago, Marion, and Pontiac (IL); Atlanta (GA); Avon and New Haven (CT); Beaumont, Dallas, Houston, and San Antonio (TX); Boston, Medford, and Somerville (MA); Bowling Green (KY); Brookfield and Milwaukee (WI); Cincinnati and Cleveland (OH); Corvallis and Portland (OR); Costa Mesa, Fresno, Glendale, Los Angeles, Riverside, Sacramento, San Diego, San Leandro, and Santa Clara (CA); Davenport (IA); Denver and Englewood (CO); Fargo (ND); Flint and Troy (MI); Hartford and New Haven (CT); Honolulu (HI); Indianapolis (IN); Knoxville, Memphis, and Nashville (TN); Little Rock (AR); Minneapolis and St. Paul (MN); New Orleans (LA); New York (NY); Oklahoma City (OK); Clearwater, Orlando, Tampa, and Titusville (FL); Phoenix and Scottsdale (AZ); Pittsburgh (PA); Seattle and Spokane (WA); and Sioux Falls (SD).

International offices are in London and Singapore.

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(414) 546-5000

George D. Dalton, Chairman and CEO
Leslie M. Muma, President and COO
Public Corporation, NASDAQ
Total Employees: 3,500 (6/91)
Total Revenue, Fiscal Year End
12/31/90: $183,180,000

The Company

FIserv, Inc. provides on-line processing services to thrifts (savings and loans and savings banks), commercial banks, credit unions and other financial institutions. The company also provides trust administration services for self-directed retirement plans and microcomputer software and educational services for asset/liability management to financial institutions. With the acquisition of Citicorp Information Resources, Inc. in April 1991, FIserv has expanded its outsourcing capabilities and added application software products, systems operations services, and professional services consulting for the financial services industry.

- FIserv was formed in July 1984 and has grown through continuing development of new services and products, and through an active acquisition plan. Since its formation, FIserv has made more than 25 acquisitions.

- FIserv claims to be the nation's largest provider of financial data processing to savings institutions and one of the top five U.S. providers of financial data processing services to banks and credit unions.

- The FIserv business strategy is to become the nation's largest full-service financial processing company through growth of its existing data centers, expansion into new geographic areas through acquisitions, and expansion into new, but related, products and services for the financial services industry.

In May 1991, FIserv made a public offering of 1.2 million shares of its common stock. Estimated net proceeds of $44 million will be used to repay a portion of the loan used to finance the acquisition of Citicorp Information Resources and for general corporate purposes. FIserv made its initial public offering in September 1986. The company received net proceeds of $11.1 million which were used to retire debt.

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FIserv's total 1990 revenue reached $183.2 million, a 12% increase over 1989 revenue of $164.0 million. Net income rose 21%, from $11.4 million in 1989 to nearly $13.8 million in 1990. A five-year financial summary follows:

FISERV, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, per share data)

	FISCAL YEAR				
ITEM	1990	1989	1988	1987	1986
Revenue	$183.2	$164.0	$125.0	$85.5	$70.4
· Percent increase from previous year	12%	31%	46%	22%	114%
Income before taxes	$21.5	$18.5	$15.1	$12.4	$8.1
· Percent increase from previous year	16%	22%	22%	54%	*
· Gross margin	12%	11%	12%	15%	11%
Net income	$13.8	$11.4	$9.2	$7.2	$5.5
· Percent increase from previous year	21%	23%	29%	31%	*
· Net margin	8%	7%	7%	8%	8%
Earnings per share (a)	$1.07	$0.89	$0.75	$0.61	$0.57
· Percent increase from previous year	20%	19%	23%	7%	*

* *Percent change not meaningful.*

(a) Restated to reflect a 3-for-2 stock split.

FIserv management attributes revenue growth primarily to acquisitions and, to a lesser degree, to the addition of new clients, the growth in the transaction volume experienced by existing clients, and price increases.

Revenues for FIserv are expected to increase to over $275 million in 1991.

FIserv dedicates approximately 20% of its total computer capacity to product development. During 1990, 1989, and 1988, the company spent $28 million, $24 million, and $15 million, respectively, on software development and maintenance.

Revenue for the six months ending June 30, 1991 reached $119.1 millin, a 33% increase over $89.9 million for the same period in 1990. Net income rose 27%, from $6.5 million to $8.3 million.

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Acquisitions made by FIserv since 1988 include the following:

- In April 1991, FIserv completed its largest acquisition to date by purchasing the principal financial data processing units of Citicorp Information Resources, Inc. (CIR) from Citicorp.
  - CIR had 1990 revenue of approximately $75 million, 700 employees, and over 500 clients.
  - The seven business units of CIR involved in the agreement provide proprietary and specialized financial data processing products, software, and services that are complementary FIserv offerings to banks, credit unions, thrifts, and other financial intermediaries. They include:
    - The Comprehensive Banking System (CBS), a domestic and international IBM AS/400-based integrated in-house system
    - National Service Product (NSP) service bureau operations
    - Resource Management/Facilities Management (RM/FM) systems operations
    - GALAXY 2000 Credit Union System, including service bureau operations and an in-house system
    - EFT/ATM-POS Service Business, switching and driving network services
    - Domestic and international financial institutions consulting
    - Communications/graphics design
  - FIserv will also provide payroll processing for Citicorp under a three-year facilities management (systems operations) agreement.
- In April 1991, FIserv acquired BMS Processing, Inc. (with 80 clients and 1990 revenue of $4 million) and a 48% equity interest in BMS On-Line Services, Inc. (with 17 clients and 1990 revenue of $4 million) and its wholly owned subsidiary, BMS Management Services, Inc.
- In May 1991, FIserv agreed to acquire the item processing business of the Federal Home Loan Bank in Dallas (TX) and

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facilities in Dallas, Houston, Little Rock, and New Orleans. The transaction is expected to become effective on July 1, 1991.

- In December 1990, FIserv acquired the checking account item processing unit of Boston Safe Deposit and Trust Company. This unit now operates as a remote site in Boston through FIserv New Haven.

- In November 1990, FIserv acquired the check processing and related functions of First Bank Milwaukee. These operations are now a remote site of FIserv Milwaukee.

- In October 1990, FIserv acquired the retail automated teller machine processing network of GTE Commercial Services Inc. and in June 1990 acquired the GTE EFT Services Money Network. Both these operations have been merged into FIserv Fresno.

- In July 1990, FIserv acquired First Interstate Management Services of Wisconsin (Sheboygan). Its operations have been merged into FIserv Milwaukee.

- In June 1990, FIserv acquired Accurate Data On Line Corporation of Titusville (FL). Accurate Data now operates as Accurate Data On Line, A FIserv Company.

- In February 1990, FIserv acquired Financial Accounting Services, Inc. of Pittsburgh (PA). It now operates as FIserv Pittsburgh.

- In August 1989, FIserv acquired Northeast DataCom, Inc. of Wallingford (CT). It now operates as FIserv New Haven.

- Early in the second quarter of 1989, FIserv acquired Triad Software Network, Ltd., a provider of specialized, in-house software for credit unions. It now operates as FIserv Chicago.

- In January 1989, FIserv acquired the data center operation of Northeast Savings, Hartford (CT). The data center, founded in 1984, is now operating as FIserv Hartford.

FIserv currently operates multiple full-service data centers, support centers, software system development centers, item processing, and back-office centers throughout the U.S. (with international offices in London and Singapore), and has systems operations contract clients with FIserv employees in multiple locations nationwide. FIserv also operates the following units with products and services for the financial industry related to FIserv data processing services:

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- First Trust Corporation provides financial institutions with specialized trust administration processing services for self-directed and qualified retirement plans. First Trust administers more than 198,000 plans with assets valued at over $3.64 billion.

- Sendero Corporation designs specialized asset/liability software programs and rate-risk management educational services for financial institutions worldwide. Sendero serves over 800 clients in 49 states and 21 foreign countries.

- Financial Institutions Consulting services are provided to financial institutions in the areas of diagnostics, strategic planning, financial management, data processing, human resources, training center development, process engineering and rationalization, and corporate banking.

- FIserv Forms & Graphics Division and Communications Design Division offer design, production, computerized inventory analysis and maintenance of custom business forms used throughout the financial industry.

Major competitors include First Financial Management Corporation, NCR, and Electronic Data Systems (EDS).

Key Products and Services

INPUT estimates approximately 94% of FIserv's 1990 revenue was derived from processing services and 6% from application software products.

The FIserv Service Dimension is an expanded combination of transaction processing and information management products and services for financial institutions. FIserv Service Dimension includes:

- A nationwide service bureau network of specialized data centers, research and development, and remote-service centers electronically linked with land-based and/or satellite telecommunications systems. Each FIserv center is staffed with dedicated commercial banking, credit union, or savings and loan industry-experienced professionals.

- In-house software systems on multiple hardware platforms designed specifically for banks, credit unions, or savings institutions

- International retail banking in-house software systems featuring multi-currency and currency exchange rate flexibility to meet the information processing needs of overseas institutions

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- Advanced banking systems running in an in-house or service bureau mode for full-service banking institutions, offering transaction processing alternatives in an on-line, real-time, memo-post, and batch processing environment

- International financial institution consulting, applying banking/information technology expertise to assist financial institutions worldwide with asset/liability management, rate-risk analysis, credit processing, marketing, portfolio management procedures, regulatory reporting, planning and implementation of automated systems, back-office operations, human resource development, and training in systems operations

- Education and training services in multiple mainframe, mini, micro, or PC-based/LAN network technologies specifically within financial institution operating environments

- Systems operations services using FIserv applications or customized systems on multiple hardware platforms either at the client's site or in a FIserv facility

- Electronic banking services, including electronic funds transfer, ATM/POS switching, driving, and settlement services interfacing with all major networks

- Specialized item processing and back-office operations centers with inclearing services, statement rendering, and return-item distribution sites for checks, sharedrafts, and money orders, strategically located throughout the U.S.

- Specialized service centers for the Resolution Trust Corporation, PHASIC, and other agencies for regional loan servicing and processing, as well as systems operations, total institution management services, and other support

- The Sendero Development Center and Institute, for education and training among financial institutions worldwide on the implementation of processes for measuring and managing interest rate risk using software modeling technology

- First Trust Center for account processing, fund administration and trusteeship of individual or business self-directed retirement plans, and assisting financial representatives and other financial service intermediaries in managing information through proprietary data base technology

- Support centers, with services ranging from complete marketing communications planning and programs, to the design,

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production, inventory analysis, warehousing, and maintenance of custom-printed business forms and supplies required by financial institutions in their daily business operations

FIserv processing services support account processing; management, government, and regulatory reporting; and business operations, analysis, marketing, and accounting functions for banks credit unions, and savings institutions.

- Ongoing support for clients includes processing of:
  - Savings accounts
  - Checking accounts
  - Share draft accounts
  - Certificates of deposit
  - Money market accounts
  - Self-directed retirement plans
  - Payroll deductions
  - Collection accounts
  - Consumer loans
  - Commercial loans
  - Mortgage loans
  - Overdraft loans
- FIserv also provides ancillary products such as an automatic clearinghouse transaction processor; an ATM support and network interface system; a safe deposit box accounting system; a fixed asset system; an account reconciliation system; item processing systems support interface; disaster recovery; optical disk storage; audio response; teller/branch automation; and a range of microcomputer-based capabilities, most of which are interfaced with their appropriate major account module.
- While most clients contract to obtain all or a majority of their processing requirements from FIserv, the modular design of the company's software allows a client to start with one application and gradually add applications and features as needed.
- FIserv supports a range of computers and terminals and other client-owned peripheral devices manufactured by multiple leading vendors, including Unisys, NCR Corporation, IBM, ISC Systems Corporation, and Data General.
- Product offerings between data centers differ in varying degrees depending on the needs of the client base. The product offerings at each of the data centers are moving towards homogeneous offerings so that FIserv can achieve economies of scale in terms of software maintenance.

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- As of December 31, 1990, FIserv's data centers provided processing and related services to 464 saving institutions, 172 banks, 320 credit unions, and 22 other financial institutions.

- As of July 1991, Fiserv's U.S. data centers were maintaining integrated data processing sytems for approximately 300 banks, 600 credit unions, and 500 savings institutions. The company currently provides processes and reports on daily transactions for over 27 million on-line accounts, serving over 2,300 financial institutions in the U.S. and abroad.

Industry Markets

One hundred percent of FIserv's 1990 revenue was derived from the banking and finance industry.

Clients include savings and loans, savings banks, credit unions, commercial banks, securities firms, financial planners, finance companies, building societies, and international banks.

Geographic Markets

Approximately 99% of FIserv's 1990 revenue was derived from the U.S., with the remaining 1% being derived from Africa, Asia, Australia, New Zealand, and Europe.

FIserv currently operates out of the following locations: Amarillo, Beaumont, Houston, Dallas, McAllen, and San Antonio (TX); Arlington Heights, Chicago, and Matteson (IL); Baton Rouge and Hammond (LA); Bay City, Lansing, and Troy (MI); Boston (MA); Bowling Green and Owensboro (KY); Cleveland, (OH); Denver (CO); Fresno, Irvine, Los Angeles, San Diego, Scotts Valley, and Simi Valley (CA); Hartford (CT); Honolulu (HI); Melville, and New York (NY); Milwaukee and Waukesha (WI); Minneapolis (MN); New Haven (CT); Omaha (NE); Orlando, Tampa, and Titusville (FL); Pittsburgh (PA); Scottsdale (AZ); Seattle and Spokane (WA); and St. Louis (MO).

Computer Hardware

FIserv owns or leases approximately 45 mainframes from IBM, Unisys, NCR, Data General, and Tandem.

Clients can access FIserv data centers via leased lines or satellite.

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FISERV, INC.
2152 South 114th Street
Milwaukee, WI 53227-1029
(414) 546-5275

George D. Dalton, Chairman and CEO
Leslie M. Muma, President and COO
Total Employees: 2,000
Total Revenue, Fiscal Year End
12/31/88: $125,029,000

The Company

FIserv, Inc. provides on-line processing services to thrifts (savings and loans and savings banks), commercial banks, and other financial institutions. The company also provides trust administration services for self-directed retirement plans and microcomputer software and educational services for asset/liability management to financial institutions.

- FIserv was formed in July 1984 by the merger of First Data Processing, Inc. of Milwaukee (previously owned by First Bank System of Minneapolis) and Sunshine State Systems, Inc. of Tampa (previously owned by Freedom Savings of Tampa).
- The company has grown through continuing development of new services and products, and through an active acquisition plan. The company completed the acquisition of ten companies between 1986 and the end of 1988.
- FIserv claims to be the nation's largest provider of financial data processing to savings institutions and one of the top ten U.S. providers of financial data processing services to banks and credit unions.
- FIserv's business strategy is to become the nation's largest full-service financial processing company through growth of its existing data centers, expansion into new geographic areas through acquisitions, and expansion into new, but related, products and services for the financial services industry.

FIserv made its initial public offering in September 1986. The company received net proceeds of $11.1 million which were used to retire debt.

FIserv's total 1988 revenue reached $125.0 million, a 46% increase over 1987 revenue of $85.5 million. Net income rose approximately 28%, from $7.2 million in 1987 to $9.2 million in 1988. A five-year financial summary follows:

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FISERV, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, per share data)

	FISCAL YEAR				
ITEM	1988	1987	1986	1985	1984*(a)*
Revenue	$125,029	$85,531	$70,370	$32,888	$24,842
• Percent increase from previous year	46%	22%	114%	32%	N/A
Income (loss) before taxes	$15,138	$12,449	$8,078	$337	$(1,744)
• Percent increase from previous year	22%	54%	*	*	*
Net income (loss)	$9,234	$7,174	$5,480	$308	$(1,744)
• Percent increase from previous year	29%	31%	*	*	*
Earnings (loss) per share	$1.12	$0.92	$0.85	$0.05	$(0.57)
• Percent increase from previous year	22%	8%	*	*	*

(a) Includes the results of FIserv's predecessors prior to the formation of FIserv in July 1984.

* *Percent change not meaningful.*

FIserv management attributes revenue growth primarily to the acquisitions made from 1985 to 1988. Revenue increases were also attributed to new clients, expansion of services sold to existing clients, growth in the transaction volume experienced by existing clients, and price increases.

FIserv dedicates 20% of its total computer capacity to product development. During 1986, 1987 and 1988, the company spent $3.9 million, $6.1 million and $10.0 million, respectively, on product development in addition to amounts spent on product maintenance.

Revenue for the six months ending June 30, 1989 reached $79.1 million, a 55% increase over $51.0 million for the same period in 1988. Net income for the period rose 23%, from $4.4 million to $5.4 million.

Acquisitions made by FIserv include the following:

- Early in the second quarter of 1989, FIserv acquired Triad Software Network, Ltd., a provider of specialized, in-house

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software for credit unions. The acquisition brings 120 new credit union clients to FIserv. Triad has been renamed FIserv Credit Union Systems-Chicago Center.

- In January 1989, FIserv acquired the data center operation of Northeast Savings, Hartford (CT). The data center, founded in 1984, is now operating as FIserv Hartford.

- In June 1988, FIserv acquired GESCO Corporation, a unit of Glendale Federal Savings & Loan Association, for $40.9 million. GESCO was the third-largest provider of data processing services for financial institutions in the U.S. GESCO serviced 36 financial institutions with over 5.5 million customer accounts at the time of the acquisition. GESCO is now operating as FIserv Fresno.

- In May 1988, FIserv acquired ZFC Electronic Data Services, Inc. (ZFC), a provider of financial data processing for Indiana, Kentucky, and Tennessee banks. ZFC provides services to twenty-six banks with nearly a quarter of a million accounts. ZFC's name was changed to FIserv Bowling Green.

- In May 1988, FIserv merged with Citizens Financial Corporation of Cleveland (OH). As a result, Champion Service Corporation, Citizen Financial Corporation's primary operating subsidiary, became FIserv Cleveland. Champion Service Corporation served approximately 70 financial institutions at the time of the acquisition.

- In February 1988, FIserv acquired Minnesota On-Line, Inc., a firm specializing in data processing for credit unions. Minnesota On-Line now operates as FIserv Minneapolis.

- In October 1987, FIserv acquired Capbanc Computer Corporation from the Capital Bank & Trust of Louisiana unit of Capital Bancshares Inc. Capbanc had 74 employees and provided on-line processing for 48 southern banks. Capbanc also has licensing agreements with 16 banks for its turnkey data processing software. Capbanc is now operating as FIserv Baton Rouge with a remote-service data center in Shreveport (LA).

- In April 1987, FIserv acquired Fidelity Financial Services, Inc. of Spokane (WA). Fidelity Financial Services, with 1986 revenue of approximately $3 million, provided processing services to institutions in Washington and Montana. It now operates as FIserv Spokane, Inc., a wholly-owned subsidiary of FIserv.

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- In April 1987, FIserv acquired the savings and loan processing of Midwest Commerce Data Corporation, a subsidiary of Midwest Commerce Corporation of Elkhart (IN), with annual revenue of about $1 million. Midwest Commerce Corporation is now operating as FIserv Elkhart.

- In February 1987, FIserv acquired Pamico, Inc., a design and print shop of customized forms for financial institutions. Pamico was merged with FIserv's On-Line Graphic unit.

- In May 1986, FIserv acquired First City Financial Systems, Inc. of Beaumont (TX) from First City Bankcorporation. First City Financial, with 1985 revenue of $16.2 million, provides processing services to financial institutions in Texas and the Southwest through its data centers in Beaumont, Dallas, Houston, and McAllen. It now operates as FIserv Beaumont with additional data centers in Dallas, Houston, and McAllen (TX).

- In January 1986, FIserv acquired On-Line, Inc. of Seattle (WA), a provider of on-line thrift processing services, business forms, microcomputers, and maintenance services in the Pacific Northwest. On-Line, with one data center in Bellevue (WA), had revenue of $9.9 million for the fiscal year-end September 30, 1985. It now operates as FIserv Seattle, Inc., a wholly-owned subsidiary of FIserv.

As of December 31, 1988, FIserv operated 11 subsidiaries as follows:

First Financial Systems, Inc.	TX
First Trust Corporation	CO
First Retirement Marketing, Inc.	CO
FIserv Cleveland, Inc.	OH
FIserv Fresno, Inc.	CA
FIserv Minneapolis, Inc.	MN
FIserv San Antonio, Inc.	TX
FIserv Seattle, Inc.	WA
FIserv Spokane, Inc.	WA
FIserv Tampa, Inc.	FL
Sendero Corporation	AZ

FIserv operates eighteen data centers throughout the U.S. FIserv also operates one division and two subsidiaries with products and services for the financial industry related to FIserv's data processing services as follows:

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- First Trust Corporation provides financial institutions with specialized trust administration processing services for self-directed and qualified retirement plans. First Trust administers more than 150,000 plans. First Trust had 309 employees as of December 31, 1988.

- Sendero Corporation designs specialized asset/liability software programs and rate-risk management educational services for financial institutions worldwide. Sendero serves over 600 clients in 49 states, Australia, Canada, the U.K., Italy, Malaysia, New Zealand, Puerto Rico, Singapore, and Sweden. Sendero Corporation had 77 employees as of December 31, 1988.

- FIserv Forms & Graphics Division offers design, production, computerized inventory analysis and maintenance of custom business forms used throughout the financial industry. FIserv Forms & Graphics Division had 35 employees as of December 31, 1988.

As of December 31, 1988, FIserv had approximately 2,000 full-time employees segmented as follows:

Marketing and sales	104
Account management and client services	240
Computer operations, network control, and technical support	554
Programming, software development, modification, and maintenance	466
Conversions and client training	120
Related support	516
	2,000

Major competitors include First Financial Management Corporation, Florida Informanagement Services, Automatic Data Processing, NCR, Citicorp, and Electronic Data Systems (EDS).

Key Products and Services

Approximately 93% of FIserv's 1988 revenue was derived from processing services, with the remaining 7% being derived from application software products.

Through FIserv's eighteen data centers the company provides full-service account processing, funds transfer, reporting, and custom data sorting, along with complete documentation and training for financial institutions. Basic services include integrated systems to

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process various deposit and loan accounts, general ledgers, central information files, household-based customer information systems, and other financial management information.

- While most clients contract to obtain all or a majority of their processing requirements from FIserv, the modular design of the company's software allows a client to start with one application and gradually add applications and features as needed.

- FIserv supports a range of terminals and other client-owned peripheral devices manufactured by many different vendors, including Unisys, NCR Corporation, IBM, and ISC Systems Corporation.

- Primary applications supported by FIserv's data centers include the following:

  - Deposit Systems. The deposit systems include separate subsystems for demand deposit accounts (both retail and commercial), savings accounts, and certificates of deposit. These systems all include complete client control of rates, as well as terms, interest calculation methods, and other variables. All of these subsystems include audit controls, management reporting, and operations/customer service reporting. Specialized features include tiered interest rates, automatic interest and penalty calculations, combined statements, retirement account control and reporting, overdraft protection, and account profitability analysis.

  - Loan Systems. The loan systems include separate subsystems for mortgage loans, commercial loans, and consumer loans. The mortgage subsystem supports full adjustable mortgage instruments capability, construction lending and loan tracking, closing, and document preparation capability. The consumer and commercial systems include a range of interest calculation methods, delinquency charges, and payment routines to support various instruments offered by financial institutions.

  - General Ledger/Financial Systems. All of the deposit and loan processing subsystems generate summary entries to their respective general ledger control accounts. The general ledger systems include extensive audit and control features and include financial reporting for the client institution, including financial statements, budget analysis, cost accounting, and regulatory required summaries.

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- Customer Information Systems. These systems provide inquiry and reporting capabilities that consolidate all the accounts of a customer of a thrift or bank. The systems provide consolidation by the customer's household address as well as by the customer's name. These systems provide management information and marketing/demographic data and also serve as the customer's name and address record.

- FIserv also provides ancillary products such as an automatic clearinghouse transaction processor; an ATM support and network interface system; a safe deposit box accounting system; a fixed asset system; an account reconciliation system; item processing systems support interface; and a range of microcomputer-based capabilities, most of which are interfaced with their appropriate major account module.

- Product offerings between data centers differ in varying degrees depending on the needs of the client base. The product offerings at each of the data centers are moving towards homogeneous offerings so that FIserv can achieve economies of scale in terms of software maintenance.

- As of December 31, 1988, FIserv's eighteen data processing centers provided services to 392 savings institutions, 202 banks, 58 credit unions and 20 other financial institutions. The company currently maintains approximately 17.5 million on-line accounts, serving over 3,400 branch locations in 33 states.

- Contract fees are generally based on the number of accounts serviced by the financial institution and the number of transactions processed, plus additional charges for special options and features. Most contracts have provisions for annual fee increases. Generally, all the full-service contracts have an initial term of three years or more. Generally, the company's contracts may be terminated on the expiration of the original or renewal term upon six months prior notice.

In addition to FIserv's integrated account processing services, the company also supplies the following software to enhance clients' own operational efficiency:

- The Collection Manager™ Delinquent Loan Collection System

- Resource™, a data extract system for specialized management summaries and reporting

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- The LoanPro™ Expedited Mortgage Loan Document Preparation, Tracking, and Secondary Marketing Selection System
- The MicroServ™ PC-based Data Extract and Decision Support System, for generating "what if" scenarios
- Microserv PC-based Accounting Systems
- The TellerPhone™ Automated Voice-response Telephone Banking Service
- The Sendero™ Asset/Liability Management System
- The SERVivor™ System, a PC-based strategic operational program and related documentation for disaster recovery and contingency planning among financial institutions

Industry Markets

One hundred percent of FIserv's 1988 revenue was derived from the banking and finance industry.

Clients include savings and loans, savings banks, credit unions, commercial banks, securities firms, and financial planners.

Geographic Markets

Approximately 99% of FIserv's 1988 revenue was derived from the U.S., with the remaining 1% being derived from Africa, Asia, Australia, New Zealand, and Europe.

FIserv's eighteen processing centers are located throughout the U.S.

First Trust Corporation is headquartered in Denver (CO).

Sendero Corporation is headquartered in Phoenix (AZ).

Computer Hardware

FIserv data centers have IBM, Unisys, and NCR systems installed.

Clients can access FIserv's data centers via leased lines or satellite.

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COMPANY PROFILE

FISERV, INC.
2152 South 114th Street
Milwaukee, WI 53227-1029
(414) 546-5000

George D. Dalton, Chairman and CEO
Leslie M. Muma, President and COO
Public Corporation, OTC
Total Employees: 1,136
Total Revenue, Fiscal Year End
12/31/86: $70,370,000

THE COMPANY

- Fiserv, Inc. provides on-line processing services to thrifts (savings and loans and savings banks), commercial banks, and other financial institutions. The company also provides trust administration services for self-directed retirement plans, and microcomputer software and educational services for asset/liability management to financial institutions.

  - Fiserv was formed in July 1984 by the merger of First Data Processing, Inc. of Milwaukee (previously owned by First Bank System of Minneapolis) and Sunshine State Systems, Inc. of Tampa (previously owned by Freedom Savings of Tampa).

  - The company has grown through continuing development of new services and products, and through the acquisition of six companies since 1984.

  - Fiserv management believes its company is the largest independent provider of processing services to the thrift industry in the U.S.

  - Fiserv's business strategy is to become the nation's largest full-service financial processing company through growth of its existing data centers, expansion into new geographic areas through acquisitions, and expansion into new, but related, products and services for the financial services industry.

- In September 1986 Fiserv made an initial public offering of 1.3 million shares of common stock, of which one million shares were sold by the company and 300,000 by certain selling shareholders. Net proceeds to the company of approximately $11.1 million were used to retire bank debt and for working capital.

- Fiserv's 1986 revenue reached $70.4 million, a 114% increase over 1985 revenue of $32.9 million. In the three-year financial summary that follows, the results of the companies acquired by Fiserv are included from their respective dates of acquisition.

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FISERV, INC.
THREE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

FISCAL YEAR / ITEM	1986	1985	1984 (a)
Revenue	$ 70,370	$ 32,888	$ 24,842
. Percent increase from previous year	114%	32%	N/A
Income (loss) before taxes	$ 8,078	$ 337	$ (1,744)
. Percent increase (decrease) from previous year	(b)	(b)	(b)
Net income (loss)	$ 5,480	$ 308	$ (1,744)
. Percent increase (decrease) from previous year	(b)	(b)	(b)
Earnings (loss) per share	$ 0.85	$ 0.05	$ (0.57)
. Percent increase (decrease) from previous year	(b)	(b)	(b)

(a) Includes the results of Fiserv's predecessors prior to the formation of Fiserv in July 1984.
(b) Percent change not meaningful.

- Fiserv management attributes revenue growth primarily to the acquisitions made during 1985 and 1986. Revenue increases were also attributed to new clients, expansion of the services sold to existing clients, growth in the transaction volume experienced by existing clients, and price increases.

- Product development expenditures were $4 million (7% of revenue) in 1986, $3.8 million (12% of revenue) in 1985, and $3.5 million (14% of revenue) in 1984.

- Acquisitions made by Fiserv include the following:

  - In April 1987 Fiserv acquired Fidelity Financial Services, Inc. of Spokane (WA). Fidelity Financial Services, with 1986 revenue of approximately $3 million, provides processing services to institutions in Washington and Montana. It now operates as Fiserv Spokane, Inc., a wholly owned subsidiary of Fiserv.

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- In April 1987, Fiserv acquired the savings and loan processing of Midwest Commerce Data Corporation, a subsidiary of Midwest Commerce Corporation of Elkhart (IN), with annual revenue of approximately $1 million.

- In May 1986 Fiserv acquired First City Financial Systems, Inc. of Beaumont (TX) from First City Bankcorporation. First City Financial, with 1985 revenue of $16.2 million, provides processing services to financial institutions in Texas and the Southwest through its data centers in Beaumont, Dallas, Houston, and McAllen. It now operates as Fiserv Financial Systems, Inc., a wholly owned subsidiary of Fiserv.

- In January 1986 Fiserv acquired On-Line, Inc. of Seattle (WA), a provider of on-line thrift processing services, business forms, microcomputers, and maintenance services in the Pacific Northwest. On-Line, with one data center in Bellevue (WA), had revenue of $9.9 million for the fiscal year end September 30, 1985. It now operates as Fiserv Seattle, Inc., a wholly owned subsidiary of Fiserv.

- In October 1985 Fiserv acquired First Trust Corporation of Denver (CO) from Genro Corporation. First Trust, with revenue of $9.5 million for the fiscal year end June 30, 1985, provides trust administration processing services and operates as a wholly owned subsidiary of Fiserv.

- In October 1985, Fiserv also acquired First Retirement Marketing, Inc. (FRMI), the marketer of First Trust's products and services. FRMI operates as a wholly owned subsidiary of Fiserv.

- In October 1985, Fiserv acquired Sendero Corporation of Phoenix (AZ), a provider of microcomputer software and educational services for asset/liability management. Sendero operates as a wholly owned subsidiary of Fiserv.

- In November 1984 Fiserv acquired Central Processing Center of San Antonio (TX), a provider of financial processing services in south central Texas. Central Processing Center now operates as Fiserv San Antonio, Inc., a wholly owned subsidiary of Fiserv.

- Revenue for the three months ending March 31, 1987 reached $20.5 million, a 50% increase over $13.7 million for the same period in 1986. Net income rose 37%, from $1.2 million to $1.7 million.

- As of December 31, 1986, Fiserv had 1,136 full-time employees segmented as follows:

Marketing and sales	32
Customer services and training	159
Software development and maintenance	220
Computer operations	471
Administrative	254
	1,136

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- The above figures include 267 employees at First Trust and FRMI, and 63 employees at Sendero.

- FIserv currently has approximately 1,200 employees.

- Major competitors include First Financial Management Corporation, Florida Informanagement Services, Gesco Corporation, Automatic Data Processing, NCR, Citicorp, and MTech.

KEY PRODUCTS AND SERVICES

- FIserv's 1986 revenue was derived from its various processing services, microcomputer software products, and educational services.

- FIserv's nine data processing centers provide on-line, integrated account servicing and management information functions for thrifts and commercial banks. Basic services include systems to process various deposit and loan accounts, general ledgers, customer information files, and other marketing and financial information systems.

  - While most clients contract to obtain all or a majority of their processing requirements from FIserv, the modular design of the company's software allows a client to start with one application and gradually add applications and features as needed.

  - FIserv supports a range of terminals and other client-owned peripheral devices manufactured by many different vendors, including Unisys, NCR Corporation, IBM, and ISC Systems Corporation.

  - FIserv's processing services are available for both thrifts and banks. The processing method generally used by thrifts is on-line, real-time and requires only one entry as the actual transaction occurs. The processing method generally used by banks is designed to accommodate a back-office proof-of-deposit operation. Under the proof-of-deposit method, transactions are entered on-line and recorded temporarily; later they are centralized and reprocessed, and recorded permanently on the master files. This method is generally used in high transaction volume environments, where rapid customer transaction handling is a requirement. The proof-of-deposit method is used by most of FIserv's bank clients and by several of the company's thrift clients. The on-line, real-time system is used mostly by FIserv's thrift clients and several banks which desire to avoid the expense of a proof-of-deposit operation.

  - Primary applications supported by FIserv's data centers include the following:

    . Deposit Systems. The deposit systems include separate subsystems for demand deposit accounts (both retail and commercial), savings accounts, and certificates of deposit.

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These systems all include complete client control of rates, as well as terms, interest calculation methods, and other variables. All of these subsystems include audit controls, management reporting, and operations/customer service reporting. Specialized features include tiered interest rates, automatic interest and penalty calculations, combined statements, retirement account control and reporting, overdraft protection, and account profitability analysis.

- Loan Systems. The loan systems include separate subsystems for mortgage loans, commercial loans, and consumer loans. The mortgage subsystem supports full adjustable mortgage instruments capability, construction lending and loan tracking, closing, and document preparation capability. The consumer and commercial systems include a range of interest calculation methods, delinquency charges, and payment routines to support various instruments offered by financial institutions.

- General Ledger/Financial Systems. All of the deposit and loan processing subsystems generate summary entries to their respective general ledger control accounts. The general ledger systems include extensive audit and control features and include financial reporting for the client institution, including financial statements, budget analysis, cost accounting, and regulatory required summaries.

- Customer Information Systems. These systems provide inquiry and reporting capabilities that consolidate all the accounts of a customer of a thrift or bank. The systems provide consolidation by the customer's household address as well as by the customer's name. These systems provide management information and marketing/demographic data and also serve as the customer's name and address record.

- Fiserv also provides ancillary products such as an automatic clearinghouse transaction processor, an ATM support and network interface system, a safe deposit box accounting system; a fixed asset system; an account reconciliation system; item processing system support interface; and a range of microcomputer-based capabilities, most of which are interfaced with their appropriate major account module.

- Fiserv processes approximately nine million accounts for over 290 thrifts and over 150 commercial banks located in 20 states.

- Virtually all of Fiserv's thrift and bank processing revenues result from contracts with initial terms from six months to five years in length. About 30% of the company's contracts have terms of one year or less, 64% have terms of two or three years, and the remainder have terms of four or five years. Contract fees are generally based on the number of

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accounts serviced by the financial institution and the number of transactions processed, plus additional charges for special options and features. Most contracts have provisions for annual fee increases. Generally, all the full-service contracts which have been entered into by Fiserv since January 1, 1986, when it implemented its new standard contracts policy, have an initial term of three years or more. Generally, the company's contracts may be terminated on the expiration of the original or renewal term upon six months' prior notice.

- Fiserv's subsidiary, First Trust Corporation, provides trust administration services for IRAs, Keogh plans, and corporate pension and profit sharing plans.
  - These products and services have historically been marketed to individual clients of product sponsors through securities firms, financial planning firms, and others by FRMI, another Fiserv subsidiary.
  - First Trust charges its clients according to either a fixed fee schedule or an asset-based schedule, depending on the type of plan and the nature of the assets held by the plan.
  - Almost all the plans administered by First Trust are self-directed, permitting the individual plan owner to invest funds in any preferred portfolio of stocks, debt securities, mutual funds, money market funds, limited partnerships, listed options, and other legally permissible assets.
  - First Trust processed about 136,000 accounts at the direction of its customers representing assets of approximately $1.4 billion at December 31, 1986, in comparison with approximately 116,000 accounts representing assets of approximately $1.2 billion at December 31, 1985.
  - First Trust provides services for retirement plans offered by many financial planning-oriented securities firms in the U.S. including Merrill Lynch, Pierce, Fenner & Smith Incorporated, Dean Witter Reynolds Inc., Associated Planners Corporation, Financial Network Investment Corporation, and Balcor, Inc.
- Through Sendero Corporation, Fiserv provides asset/liability management microcomputer software products and education services to financial institutions.
  - Sendero offers four levels of its Sendero Model software for rate risk management. The models support GAP management, duration analysis, and dynamic simulation functions for community banks, savings institutions, bank holding companies, and large financial institutions.
  - Sendero clients include over 200 financial institutions, including 25 of the 100 largest U.S. banks.

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INDUSTRY MARKETS

- One hundred percent of Fiserv's 1986 revenue was derived from the banking and finance industry.
- Fiserv targets financial institutions with assets of at least $25 million. Although the company derives substantial revenue from institutions with assets in excess of $1 billion, the majority of Fiserv's customers have assets ranging from $50 million to $500 million.
- Clients include savings and loans, savings banks, credit unions, commercial banks, securities firms, and financial planners.

GEOGRAPHIC MARKETS

- One hundred percent of Fiserv's 1986 revenue was derived from the U.S.
- Fiserv's thrift and bank processing services are provided from nine centers located in four geographic regions as follows:
  - The Midwest: Milwaukee (WI).
  - The Pacific Northwest: Seattle and Spokane (WA).
  - The Southeast: Tampa (FL).
  - The Southwest: Beaumont, Dallas, Houston, McAllen, and San Antonio (TX).
- First Trust Corporation is headquartered in Denver (CO).
- Sendero Corporation is headquartered in Phoenix (AZ).

COMPUTER HARDWARE

- Fiserv maintains 12 Burroughs (Unisys), 11 NCR, and 2 IBM mainframes at its various data centers.
- Clients can access Fiserv's data centers via leased lines or satellite.

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COMPANY HIGHLIGHT

FLORIDA SOFTWARE SERVICES
711 Semoran Blvd.
Altamonte Springs, FL 32701
(305) 831-3001

Kenneth Kirchman, President
Private Corporation
Total Employees: 300
Total Revenues, Fiscal Year End 3/31/79: $16 million

THE COMPANY

- Florida Software Services, Inc. (FSS) was started in 1968 with the intention of developing and marketing software products. The decision was made early in the corporate history to concentrate on financial applications. Florida Software Services now supplies software systems primarily to commercial banks for batch processing of financial applications.

- Revenues in FY 1979 were approximately $16 million, a 23% increase over FY 1978 revenues of $13 million. Florida Software management anticipates 1980 revenues will be $20 million.

- FSS presently has two divisions: Florida Software Services which markets the 14 software systems and Florida Computer Services which provides processing services.

- In an attempt to maintain leadership in the financial software systems marketplace, Florida Software Services management intends to release at least seven new financial software products during 1979. In addition, Florida Computer Services Division management intends to expand processing services by establishing additional data centers across the U.S.

- FSS maintains constant communication with its users through F.U.R.S.T. (Florida Software Services Users Researching System Together), a separate user group sponsored by Florida Software, but independent of the company. Chartered in 1975, F.U.R.S.T. now has a membership of 1,400 banks. The group meets annually to provide FSS management with feedback about how systems might be enhanced, and provide input about new systems FSS might develop. Fifty computer hardware vendors exhibited products at the F.U.R.S.T. conference in 1978.

- FSS has 300 employees distributed within the company as follows:

- Marketing/sales	20
- Software Services/ Customer Support	200
- Computer Operations	60
- General and Administrative	20
	300

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KEY PRODUCTS AND SERVICES

- Florida Software Services is a leader in bank application software packages. Software products account for 75% of revenue and processing services account for 25%.

- The 14 software products available from Florida Software Services are described below:

  - Central Information File (CIF II) has total access to all application master file information. On-line inquiry includes: on-line statements, history information, credit information, payment information, stops, holds, floats, assignments, ledger and available balances, payoffs, and IRA payment schedules. CIF II is also designed to generate highly detailed "relationship" information. There are currently 16 systems installed.
  - Certificates of Deposit III (CD III) automates routine clerical chores while also keeping the user up-to-date on rapidly changing Federal regulations. The system provides a comprehensive set of daily, monthly, and year-end reports and produces a complete, clear audit trail. There are 219 CD III systems in use.
  - The Check Reconciliation system produces reports that cover the entire checking process from start to finish: maintenance, check issued, checks paid, and a comprehensive checks outstanding report. The system permits check reconcilement within pre-determined plus or minus ranges and will group checks by length of time outstanding. A billing statement is produced which allows the user to charge each account on a per item and/or minimum billing amount basis. There are eight installations of this system.
  - Commercial Loan provides immediate access to information such as investor remittance data, loan type balances, participation reports, geographic loan analyses, interest rate change reports and future maturities information. One hundred forty-nine systems have been installed to date.
  - Dealer Floor Plan II features include calculation of interest using average daily in actual balance, curtailment and flat fee billing, variable statement dates, inventory audit reports, prime rate change notices, and management reports including credit line commitment penalty, UCC expiration, yield units and dollars. There are currently 72 installations.
  - Demand Deposit IV (DDA IV) offers state-of-the-art accounting functions for demand deposit accounts, credit line services, automatic transfers and NOW accounts. DDA IV has been installed at 102 locations.
  - Financial Management/General Ledger (FM/GL II) enables each user to design a chart of accounts to control content, format, and frequency of numerous comparative financial reports. FM/GL II also includes complete cost accounting, budgeting and forecasting functions. There are 95 installations of the FM/GL II system.

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- Installment Loan IV (ILIV) offers the user the flexibility to choose from a wide range of loan types, accrual and rebate methods, payment schedules and fees. The system includes a Bank Control Record (BCR) which allows for the customization of individual requirements for every organization and branch on the system while maintaining them all on the same master file for ease of operation. IL IV has been installed at 158 locations.
- Mortgage Loan Extended (MLX) offers thorough warehousing and investor reporting capabilities. It provides complete and flexible processing of all types of mortgage loans while allowing the user to choose from a virtualy unlimited combination of loan types, accrual methods, interest calculations, payment methods and billing cycles. One hundred forty-seven systems have been installed to date.
- The Payroll system features a choice of pay cycles, payment types, and deductions. Reports are available on payroll expenses, quarter-to-date and year-to-date totals, labor distribution data for distributing salaries by cost center and for project. With 92 installations, both the system and the documentation are continually updated to reflect changing Federal reporting requirements.
- Savings System III (SAV III) processes a variety of savings accounts including: regular savings, club accounts, corporate, golden passbook, passbook, and IRA. The system offers 98 different types of savings accounts, 14 different types of fund transfers within savings and between checking and savings. SAV III has a built-in alternate name/address mailing capability. With SAV III each type of savings account can be set with its own method of interest payment. Through the use of an Organizational Control Record, each organization/branch can have its own set of processing parameters. SAV III is a new FSS product.
- Stock Transfer maintains company stockholder records. It generates information which helps the user monitor stock certificate buys and sells. The system maintains a complete history on every certificate, telling who owns what certificates and how many they own. The entire proxy cycle is also handled by this system including the generation and tabulation of voting results, the production of cash dividend checks, stock dividends, stock splits and warrants.
- Supplies Inventory Control System informs the user of inventory: what is needed, what it costs, who the vendor is, what is on order, who is using the supplies in what department, and how efficiently they use them compared to other departments. There are 78 installations of the Supplies Inventory Control System.

- All of Florida Software's systems operate with a multi-bank/multi-branch capability which allows each bank to select its own processing parameters. Clients can select reports by bank/branch, establish bank policies on accruals, year base, run frequencies, processing days, and statement cycles.

- FSS software systems range in price between approximately $3,000 and $40,000 depending on hardware. All systems are modular in design and provide information both through reporting and on-line. The FSS systems are written

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in COBOL for operation on IBM Systems 360/370/30XX/43XX with DOS or OS environments or for Burroughs B2805.

- Florida Computer Services Division offers remote batch processing services for approximately 60 banks in the State of Florida. All of FSS's financial applications are available on a network comprised of leased and WATS lines. Data centers are located in Tallahassee, Florida as well as at the headquarters location in Altamonte Springs.

INDUSTRY MARKETS

- Almost one hundred percent of FSS's revenues are derived from the banking industry: commercial banks and thrift institutions.
  - In addition to banks, FSS provides processing services on its network for payroll, check reconciliation, library past due and apartment billings management.
  - Prior to Spring 1979, FSS provided limited facilities management to the medical industry through Florida Medical Services. This division has been phased out.

GEOGRAPHIC MARKETS FSS products are currently used by over 1,500 banks nationwide. There are FSS installations in New Zealand and Canada as well.

COMPUTER HARDWARE AND SOFTWARE Each of the FSS data centers operates one IBM System/370 Model 148 running under DOS.

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COMPANY PROFILE

FOOTHILL RESEARCH, INC.
1301 Shoreway Road
Suite 300
Belmont, CA 94002
(415) 593-6696

David Parks, President & CEO
Private Corporation
Total Employees: 35
Total Revenue, Fiscal Year End
12/31/85: $3,000,000*

THE COMPANY

- Foothill Research, incorporated in 1982, markets and supports STYLE, a high-level programming language designed for 32-bit minicomputers.
- INPUT estimates Foothill Research's 1985 revenue was $3 million, compared to $1.3 million for 1984.
- Foothill Research currently has 35 employees, segmented as follows:

Technical development	11
Customer support	9
Computer operations	4
Marketing and sales	7
General and administrative	4
	35

KEY PRODUCTS AND SERVICES

- One hundred percent of Foothill Research's 1985 revenue was derived from STYLE, its high-level programming language and data management system.
- STYLE, introduced in 1983, was designed to replace COBOL in the development of business and financial applications, such as general ledger, inventory control, and payroll/personnel.
  - STYLE was designed to co-exist with programs, files, and data previously developed in COBOL and other programming languages.
  - STYLE is available on 32-bit minicomputers that use UNIX System V, Version 7, and 4.2 BSD operating systems; DEC VAX Series 730, 750, 780, and 785 computers running under VMS; Stratus Computer's FT-200, XA-400, and XA-600; and on Data General's MV Series computers with the AOS/VS operating system.

*INPUT estimate

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- STYLE features include the following:
  - Only 33 commands and 14 keywords for development of applications programs.
  - Priority of applications between different computers and operating systems.
  - "Windowing" and user programmable function keys.
  - Option to use familiar programming constructs found in other languages and software tools.
  - A transaction logging/recovery system that provides data base management capabilities.
- Foothill Research has made 83 installations of STYLE. The software licenses for $17,000 to $45,000, depending on the host computer used.

INDUSTRY MARKETS

- Foothill Research's revenue is derived from clients across industries.

GEOGRAPHIC MARKETS

- Approximately 30% of Foothill Research's 1985 revenue was derived from the western region of the U.S., mostly California and Washington. Forty percent was derived from Europe, the United Kingdom, and Scandinavia. The remaining 30% was derived from Japan and Australia.
- Foothill Research is located in Belmont (CA), with international sales agents located in the United Kingdom, Scandinavia, Japan, and Australia.

HARDWARE INSTALLED

- Foothill Research has one Data General MV 8000, running under AOS/VS, located at its Belmont office.

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FORCETEN COMPUTER SERVICES LIMITED
5121 Sackville Street
Halifax, Nova Scotia
Canada B3J 1K1
(902) 422-8355

Peter White, President and CEO
Private Company
Total Employees: 75
Total Revenue, Fiscal Year End
12/31/89: $5,000,000*

*INPUT estimate

The Company

ForceTen Computer Services Limited currently provides data entry and electronic document processing services in Canada.

- ForceTen previously operated as a subsidiary of Maritime Telephone and Telegraph Co. During 1987, it was purchased from Maritime by certain former ForceTen management and became an independent, private company.
- Since 1987, the company has undergone several organizational and operational changes. The current focus of the company is on data entry and electronic document production/processing services.

Key Products and Services

Approximately 60% of ForceTen's revenue is derived from data entry services and 40% from electronic document processing services.

ForceTen's data entry and electronic printing facilities are in operation 24 hours a day. List maintenance and laser printing services are also provided.

Industry Markets

ForceTen's revenue is derived from clients in various industries.

- Data entry services are provided primarily to various Canadian government agencies.
- Electronic document processing services are provided to various fundraising organizations, government agencies, and other clients requiring laser printing and/or list fulfillment services.

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Geographic Markets

One hundred percent of ForceTen's revenue is derived from Canada.

Computer Hardware

ForceTen has access to an IBM 3083, MVS, through an agreement with its former parent company (Maritime).

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FORCETEN ENTERPRISES, INC.
3845 Dutch Village Road
Halifax, Nova Scotia
Canada B3L 4H9
(902) 453-0040

David Houston, President and CEO
Majority Owned Subsidiary of Maritime Computers, Ltd.
Total Employees: 120
Total Revenue, Fiscal Year End 12/31/85: $9,000,000*

THE COMPANY

- ForceTen Enterprises, incorporated in 1984, provides application software products and associated support services to the telephone, mutual insurance, and dental industries; processing services; and professional services. The company also provides hardware maintenance services and is an OEM for Hewlett-Packard.

- INPUT estimates that ForceTen's 1985 revenue was $9 million.

  - An estimated 80% of revenue was derived from computer services activities.

  - The remaining 20% of revenue was derived from noncomputer services, including hardware maintenance and OEM sales.

- As of December 31, 1985, ForceTen had 120 employees, segmented as follows:

Marketing and sales	20
Technical development	12
Customer support	25
Computer operations	4
Processing services	25
Hardware maintenance	14
General and administrative	20
	120

  - It is estimated that approximately 95 employees were involved with computer services-related activities.

- Prior to February 1984, ForceTen was a wholly owned subsidiary of Maritime Computers, Ltd. At that time, Maritime sold a 15% interest in the company to private investors.

*INPUT estimate

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KEY PRODUCTS AND SERVICES

- Approximately 50% of ForceTen's 1985 revenue was derived from application software products, 25% from processing services, and 5% from professional services. The remaining 20% was derived from noncomputer products and services.

- ForceTen provides the following application software products:

  - CRB Plus, a customer records and billing system for telephone companies, was developed by Maritime Computers, Ltd. and introduced three years ago.

    - The CRB Plus modular design was developed to integrate with established business practices and policies and to provide for future growth.

    - The CRB Plus credit and treatment feature is used to monitor account balances against established credit limits; fast-finals and interim billing features reduce the risk of uncollectibles.

    - Customer account numbers independent of service numbers provide a record of customer activity and provide a basis for evaluating customer credit.

    - The on-line features of CRB Plus give service representatives access to current information for handling customer inquiries.

    - CRB Plus generates reports ranging from daily summary reports to analyses of operations for review and business planning.

    - CRB Plus runs on IBM mainframes running under MVS and is priced from $1 million.

    - There are currently six CRB and CRB Plus installations.

  - Mutual, an application for mutual insurance companies, was originally developed by ForceTen as custom software for a client.

    - Mutual contains the following six modules:

      - Accounts receivable.
      - Accounts payable.
      - General ledger.
      - Insurance.
      - Investment portfolio.
      - Miscellaneous includes systems capacity checking and sweeping.

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- Mutual allows direct billing and agency billing from the insurance module, automatic renewal of the policy, and endorsements of the policy.
- Mutual can also be integrated with word processing, spreadsheet, and graphics packages.
- Mutual operates on the IBM PC/AT running under XENIX and the HP-250 running under OS/6 and is priced at $30,000.
- There are currently 10 Mutual installations.

- Practice Perfect, a dental practice management system, was introduced in January 1986.
  - Practice Perfect provides the following functions:
    - General ledger.
    - Accounts receivable.
    - Accounts payable.
    - Direct billing and third-party billing, including determination of deductibles, patient payments, and expected payments from insurance companies.
    - Word processing.
    - Relational data base system.
    - Appointment scheduling.
    - Recalling.
    - Referral tracking.
  - Practice Perfect operates on the IBM PC/AT running under XENIX and the HP-250 running under the OS/6 operating system and is priced at $15,000.
  - There are currently 10 Practice Perfect installations.

- ForceTen provides remote interactive and remote batch data processing services to approximately 40 customers in Canada and the U.S.
  - Processing is provided via an IBM 3083 running under MVS and an HP-3000 running under MPE. Customers generally access these processing services using terminals, IBM PCs, PC/XTs, PC/ATs, HP-150s, and HP-250s, but can contract to use other equipment as well, including minicomputers and mainframes.
  - Remote interactive and remote batch processing services are available via a dial-up arrangement in which charges are per minute; dedicated lines leased at monthly rates; or through other networking services with charges based on the amount of data transmitted.

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- ForceTen provides a range of software products to its processing customers, which are outlined in the exhibit. Customers can also use their own software.

- ForceTen provides processing services to a range of industries, including education (universities), manufacturing, services, insurance, medical, as well as local and federal government.

- Professional services provided by ForceTen include custom software development and modification of the company's application products.

- Noncomputer services provided by ForceTen include the following:

  - ForceTen services major lines of computers, printers, card readers, telecommunications equipment, and related devices. Throughout Canada, ForceTen maintains the equipment of various computer equipment manufacturers including Northern Telecom, Dataforce, IBM, Sony, Mohawk Data Sciences, Harris Systems, Bell & Howell, and Ampex.

  - ForceTen is an OEM for Hewlett Packard computers.

INDUSTRY MARKETS

- Approximately 55% of ForceTen's 1985 computer service revenue was derived from telephone companies and 5% was derived from mutual insurance companies. The remaining 40% of computer service revenue was derived from a range of industries, including utilities, communications, manufacturing, education, and medical.

- Noncomputer service revenue was derived from hardware maintenance services and OEM sales.

GEOGRAPHIC MARKETS

- Approximately 30% of 1985 revenue was derived from the U.S.; the remaining 70% was derived from Canada.

- ForceTen estimates that 50% of 1986 revenue will be derived from the U.S., 40% from Canada, and 10% from the Far East.

- ForceTen is headquartered in Halifax, Nova Scotia. Branch offices are located in Moncton (New Brunswick), Toronto (Ontario), and Chicago (IL).

COMPUTER HARDWARE AND SOFTWARE

- ForceTen has an IBM 3083 running under MVS and an HP-3000 running under MPE installed at its headquarters.

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EXHIBIT

FORCETEN ENTERPRISES NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT - HP-3000, MPE
• PROGRAMMING LANGUAGES - BASIC - COBOL - FORTRAN - SPL - INFORM - TRANSACT
• GRAPHICS - DSG - HP DRAW - HP EASY CHART
• REPORT WRITERS - REPORT - QUIZ
• OTHER - MDBA - TDP - POWER PLAN - HP WORD - HP TOOLSET - HP DESK MANAGER

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT - IBM 3083, MVS
• PROGRAMMING LANGUAGES - COBOL - FORTRAN
• DATA BASE MANAGEMENT - SYSTEM 2000
• STATISTICAL ANALYSIS - SAS - MBDP
• ENGINEERING - ICES - GALE/STRIF
• OTHER - TARGET - PREMISE - PLAN CODE - PANVALET

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cc: Michael Sanders
United Computing Systems

COMPANY HIGHLIGHT

ACQUIRED BY UCS

FORESIGHT SYSTEMS, INC.
1901 Avenue of the Stars
Los Angeles, CA 90067
(213) 277-2722

Theodor H. Braun, President
~~Private Corporation~~
Wholly owned subsidiary of
United Computing Systems, Inc.

Total Company and Computer Services Sales
as of FY ending 12/75: $800,000

NUMBER OF EMPLOYEES engaged in computer services: 18

KEY PRODUCTS/SERVICES: Software products account for 70% of sales, 1/7 of which is royalties. Software services and management consulting constitute the remaining 30% of sales. Key products are financially oriented:

- Foresight: for financial planning and modeling. Listed on 1975 Honor Roll of Software.
- Foretax: for federal, municipal and franchise income tax reporting, planning and consolidation and ADR guideline and depreciation calculations.

APPLICATIONS: Applications are financially-oriented general business applications.

INDUSTRY MARKETS: Foresight Systems serves a cross-section of industries. Functionally-oriented products enhance this capability.

GEOGRAPHIC MARKETS: Customers are concentrated in the North Central and Pacific States regions, as demonstrated by the distribution of U.S. sales:

North Central	30%
Pacific States	20%
West	15%
Midwest	15%
South Central	5%
Southeast	5%
Northeast	5%
New England	5%
Total	100%

The branch office in New York City has been open for some time. The Chicago and Houston offices just opened in April of this year. In addition, 1 employee is based overseas, where 6% of revenues are derived.

COMPANY HIGHLIGHT/FORESIGHT SYSTEMS, INC.

Overseas representatives are located in:

Australia	Philippines
England	Sweden
Hong Kong	Thailand
Netherlands	West Germany
Norway	

COMPUTER HARDWARE AND SOFTWARE: None. Products are being used on a variety of IBM, Burroughs, Control Data Honeywell, DEC, Sperry Univac, Xerox and ICL mainframe computers however.

OVERALL ASSESSMENT AND TRENDS: Foresight was acquired recently by United Computing Systems from Johns-Manville. Some of the following members of Foresight top management were involved in negotiations.

T. A. Braun	President and Responsible for Financial Activities
A. L. Pearlman	Vice President of Marketing
B. Weinstein	Manager of Product Development
W. Falvey	Manager of Consulting Services

By making its products available through United Computing Network, Foresight sales should easily double by 1980. (See Company Highlight on United Computing Systems for additional information.)

COMPANY HIGHLIGHT

FORTEX DATA CORPORATION
10 South Riverside Plaza
Chicago, IL 60606
(312) 454-1650

Douglas C. Jerger, President
Private Corporation
Total Employees: 59
Total Revenues, Fiscal Year End 12/31/79: $3.5 million

THE COMPANY

- Fortex Data Corporation was formed in July 1970 by Douglas C. Jerger, Robert Forney, and Arthur Hendrickson to develop financial applications software. Messrs. Jerger and Hendrickson remain with the company in the capacities of president and executive vice president respectively. Initially, Fortex specialized in batch accounts receivable systems. In 1975, the company signed a contract with Rohm and Haas Company, an international chemical manufacturer, to develop an on-line accounts receivable system. This real time, data base oriented system became the basis for C-ARMS (Commercial-Accounts Receivable Management System) which is the leading software product currently marketed by Fortex.

- Fortex's 1979 gross sales were $3.5 million. The company has experienced an 84% annual growth rate for each of the last two years. Fortex reports that first quarter sales for 1980 were up 75% over the same period in 1979. An overall increase of 40% is projected for 1980.

- Major competitors of the company include Management Science America, Inc., Data Design, McCormack and Dodge, and Computeristics, Inc.

- Fortex's employees are categorized as follows:

-	Marketing/sales	12
-	Product control	20
-	Customer support	7
-	Account management	11
-	Administration	9
		59

KEY PRODUCTS AND SERVICES

- The company derives 100% of its revenues from the development and marketing of its software products.

  - C-ARMS (Commercial-Accounts Receivable and Management System) was released in April 1977. It provides users with a complete on-line

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credit and collection system. C-ARMS gained recognition from International Computer Programs for its first-year sales of over $1 million. During 1978, the sales volume doubled and by the end of 1979, the growth in sales exceeded 100%. C-ARMS now accounts for 80% of Fortex's total revenues.

- The system has the following features:
  - . Account identification through MICR number, invoice number, or customer name and location.
  - . Production of charge-back memos and write-off journals.
  - . Dunning and statements for specified customers.
  - . Exception reporting of risk, credit limits, and payment problems.
  - . Industry credit data.
- C-ARMS will provide over 70 reports including 13 varieties of ATB, aged trial balance, reports, and a comprehensive history of account activity.
- The system has been installed on IBM System/370, 3300, and 4300 equipment. It is data base compatible with TOTAL, IDMS, IMS, and DL/1. Users have the option of one of the following teleprocessing monitors: Taskmaster, IMS, CICS, or Environ I.
- The system costs from $65,000 to $100,000 depending on the data base and teleprocessing monitor selected.
- An additional $5,000 to $7,000 for an annual maintenance contract provides users with state-of-the-art enhancements.
- Over 75 systems have been installed: half during the last 12 months.

• PIMS (Property Information and Management System) is a fixed asset system. It provides retrospective and prospective property information analyses.

- Features include:
  - . Multiple books available for book and tax information, as well as for other taxing or regulatory bodies.
  - . Complete automatic handling of ADR entries and reporting.
  - . Historical reporting and forecasting of location, cost, and depreciation.
  - . Leasing in full compliance to FASB-33.

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. Current value to current cost/constant dollar full compliance to FASB-33.

- Price of PIMS ranges from $20,000 to $25,000.
- It is written in ANS COBOL and has been installed on IBM System/360 and 370 equipment.
- Fortex has installed 85 systems of PIMS since its release in 1973.

- COPS (Construction in Progress System) is a new product which will be released in a batch version in September, 1980. On-line capability will be introduced in 1981.
  - COPS is a financial system that will provide accounting control of construction in progress. It will be available either as a standalone system or with an automatic interface to PIMS.
  - The price will be $15,000 to $35,000 depending on options selected.
  - COPS is written in COBOL and will be available for installation on IBM equipment with the same data base and teleprocessing monitor support as provided for C-ARMS.

INDUSTRY MARKETS

- Fortex has installed over 200 major systems to clients in all industry sectors, except government. Clients are typically Fortune 1000 companies. Users include Olympia Brewing, Rohm and Haas, Pepperidge Farm, Minolta, Virginia National Bank, and Hershey Chocolate Company.

GEOGRAPHIC MARKETS

- Ninety percent of the company's revenues are derived from the sale of products within the United States.
  - Clients are primarily located in the Northeastern states, the Midwest, and the West Coast.
  - Canadian sales account for the balance of Fortex's revenues. Fortex does not market its products directly to Canada. Canadian clients are the subsidiaries of U.S. firms that are using Fortex's software.
  - Penetration of other international markets is being considered for 1983.
  - All marketing and sales activities are directed out of the corporate headquarters in Chicago, IL, with a branch office in Pittsburgh. Regional, full-service sales offices are planned for 1981.

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COMPUTER HARDWARE Fortex maintains an IBM System/370 Model 148 with a VSI operating system for testing and development purposes.

May 1980
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COMPANY BRIEF

Cross Industry: Systems Software

Forthright Systems, Inc.
490 Lakeside Drive
Sunnyvale, CA 94086-4705
(408) 730-5700

CEO: Dan Erlin, Founder and Chairman
Richard Beck, President
Private Company
Founded: 1984

Employees: 22 (12/86)
Revenue (FYE 6/30/86): Start-Up

The Company: Forthright Systems is the developer of VantagePoint™, a mainframe-to-micro visual report generator. The VantagePoint system, introduced in November 1986, automatically retrieves, manipulates, and presents up-to-the-minute mainframe data by using personal computing technology

Sources of Revenue:
- Systems Software (100%)

Key Products:
- System Software Product (Utilizes IBM PC, XT, AT, or compatible personal computers, and accesses IBM mainframe data via on-line 3270 screens)
  - The VantagePoint system produces and delivers reports using information from any source on the mainframe and can combine information from multiple sources on a single report. These reports are delivered to a PC in numeric and color graphic form.
    - There are two software components to VantagePoint: the Development Tools used to develop applications for the user and the User System which runs these applications
    - VantagePoint features a touch pad for user interaction
  - VantagePoint component price list:
    - VantagePoint Development Tools - $25,000
    - VantagePoint Touch Pad - $295
    - VantagePoint User System - $995

Target Industries:
- End-user computing organizations, systems programmers, and applications programmers

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Geographic Markets:

- U.S. (100%)
- During 1986 sales efforts will be concentrated in California
- 1987 sales will be derived from across the U.S. and Canada
- Forthright Systems' products will be sold through a direct sales force in the U.S. Canadian distribution will be handled by Alpha Systems located in Toronto

Other:

- The company's primary funding is capital from the founder and private investors

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FOURTH GENERATION TECHNOLOGY, INC.
10280 North Torrey Pines Road
Suite 350
La Jolla, CA 92037
(619) 455-7663

Otis Brinkley, President and CEO
Private Corporation
Total Employees: 115 (10/89)
Total Revenue, Fiscal Year End
12/31/88: $4,134,000

The Company

Fourth Generation Technology, Inc. (4GT), founded in 1983, provides custom software development professional services primarily to the Department of Defense (DoD). 4GT develops large information systems using fourth-generation language (4GL) technology, a proprietary systems development methodology (SDM), and its computer-aided software engineering tools.

4GT as experienced rapid growth over the past several years. 1988 revenue reached $4.1 million, a 46% increase over 1987 revenue of $2.8 million. A three-year revenue summary follows:

FOURTH GENERATION TECHNOLOGY, INC.
THREE-YEAR REVENUE SUMMARY
($ thousands)

	FISCAL YEAR		
ITEM	1988	1987	1986
Revenue	$4,134	$2,827	$1,970
• Percent increase from previous year	46%	44%	126%

4GT management anticipates that 1989 revenue will exceed $8 million, and that 1990 revenue will reach an estimated $11 million.

- 4GT management claims that the company is profitable, has no debt, exceptionally good cash flow, and an excellent historical and projected profit and loss statement.

4GT competitors include most major systems integrators.

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Key Products and Services

One hundred percent of 4GT's 1988 revenue was derived from custom software development professional services and systems integration.

4GT specializes in the development of large computer informations systems that support data management of adminstrative, financial, and logistics applications. The software systems developed typically involve large IBM mainframe and compatible computers in an on-line, interactive mode of operation.

- 4GT services also include data modeling, systems analysis and design, application programming, conversion assistance, systems integration, system testing, technical and user training, and integrated microcomputer systems.

- Consulting services provided include feasibility studies, cost/benefit analysis, post implementation reviews, project management, and information systems planning.

In its early stages, the company completed a major program management system for the U.S. Navy, several financial and management systems for the U.S. Air Force, and conceptual designs for several Fortune 500 clients.

- As a result of completing a critical 12-month task for the U.S. Air Force in just four months during 1985, in 1986 4GT was subsequently selected on a competitive basis to produce the Case Management Control System (CMCS) for the Air Force Foreign Military Sales program. This turnkey project is valued in excess of $13 million to 4GT.

  - CMCS is a planning, logistical, and accounting system. The program operates with more than 4,100 application programs, includes 42 subsystems, and will service more than 500 users internationally.

  - Software development on the core subsystems will be completed during 1989. 4GT will provide ongoing support and enhancements to broaden the use and capabilities of CMCS within the Air Force, as well as within the DoD, for future years.

- Other projects completed for the Air Force include the following:

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- A training control system to handle all aspects of training management, including planning, scheduling, accounting, and tracking of resources
- A complex customer order control system
- Integrated financial systems

While 4GT will continue to meet the requirements of its current customer base of organizations within the U.S. Air Force, it is also pursuing a strategy of new business development.

- This strategy emphasizes teaming or subcontract arrangements with major system integrators and/or software developers, as well as pursuit of appropriate system development projects targeted to the private sector for consulting on large systems development in a 4GL environment.

SyntheSystem is 4GT's automatic program generator developed for IBM mainframes running under the VM/CMS operating system.

- SyntheSystem is used to design, develop, implement, operate, and maintain FOCUS-based application systems.
- SyntheSystem is used internally by 4GT in support of custom system development services provided to its clients. The software is also available to FOCUS users with systems running under VM/CMS, which primarily includes insurance, bank, and telephone companies.
- SyntheSystem has been licensed to six clients. The system is priced at $200,000.

Industry Markets

Ninety-nine percent of 4GT's revenue is derived from the DoD, primarily the Air Force. The remaining 1% was derived from commercial clients.

Geographic Markets

One hundred percent of 4GT's revenue is derived from the U.S.

In addition to its headquarters, the company has a branch office in Denver and plans to open an office in Washington, D.C. during the first quarter of 1990.

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Computer Hardware

4GT has an IBM 4331, VM/CMS installed at its La Jolla headquarters. The company plans to install an IBM 4381 during 1990.

4GT also uses a customer's IBM 3090 equivalent system in support of services provided to the U.S. Air Force.

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COMPANY PROFILE

FOURTH GENERATION TECHNOLOGY, INCORPORATED
1660 Hotel Circle North, Suite 600
San Diego, CA 92108
(619) 294-9058

Nigel S. Read, President and CEO
Private Corporation
Total Employees: 25
Total Revenue, Fiscal Year End 12/31/85: $1,000,000

THE COMPANY

- Fourth Generation Technology, incorporated in 1983, provides custom software development professional services primarily to the federal government. The company has recently introduced a systems software productivity tool which will be marketed to insurance companies, telephone companies, and banks.

- Fourth Generation Technology currently has 25 employees, segmented as follows:

Technical (systems and program analysts)	20
Administration	5
	25

  - The company plans to increase personnel to 45 employees by June 1986 by adding 20 employees to its technical staff.

- Revenue for fiscal year ended December 31, 1985 was approximately $1,000,000. Due to the company's introduction of its application software product and the substantial increase in personnel planned for 1986, Fourth Generation Technology expects revenue to grow by 400% this year.

- Fourth Generation Technology has one subsidiary, Four GT Australia Proprietary Ltd. Established in 1984, the Australian subsidiary is currently dormant and generated no revenue for the company in 1985.

- Fourth Generation Technology identified the following competitors: Planning Research Corporation, CACI, and Electronic Data Systems.

KEY PRODUCTS AND SERVICES

- One hundred percent of 1985 revenue was derived from custom software development professional services for IBM mainframes.

- Fourth Generation Technology provides management information system custom software, including accounting and logistics applications (excluding

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scientific applications), for IBM mainframes running on VM/CMS or MVS operating systems. The company tends to do most of its work with VM/CMS and uses FOCUS, the fourth generation language developed by Information Builders Inc., exclusively.

- Fourth Generation Technology provides custom software for mainframes other than IBM only if they run on FOCUS, and is limited by restrictions associated with FOCUS and the particular hardware.

- Typically, Fourth Generation Technology contracts for one- to two-year projects for custom software development.

- The company's primary client for its professional services is the Department of Defense.

- In January 1986, the company introduced its first off-the-shelf software product, SyntheSystem. SyntheSystem is an automatic program generator developed for IBM mainframes running under the VM/CMS operating system.

  - Target markets for the SyntheSystem product are FOCUS users in the U.S. with systems running under VM/CMS. This group primarily includes insurance companies, telephone companies, and banks.

  - The SyntheSystem is used to design, develop, implement, operate, and maintain FOCUS-based application systems. The product was test marketed in Australia by the company's subsidiary, Four GT Australia Proprietary Ltd. No installations of SyntheSystem have been made as yet, although the company expects to derive 10% of 1986 revenue from sales of this product.

  - SyntheSystem is priced at $60,000.

INDUSTRY MARKETS

- Ninety-nine percent of 1985 revenue was derived from the company's management information system custom software developed for the Department of Defense. The remaining 1% was derived from management information system custom software sold to other industries.

GEOGRAPHIC MARKETS

- One hundred percent of 1985 revenue for Fourth Generation Technology was derived from the U.S.

HARDWARE INSTALLED

- Fourth Generation Technology currently has one IBM 4331, running under VM/CMS, installed at its San Diego headquarters.

- The company plans to install an IBM 4341, also running on VM/CMS, in the second quarter of 1986.

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changed name to Menlo Comp Associates

COMPANY HIGHLIGHT

FRELAN ASSOCIATES
P. O. Box 298
Menlo Park, CA 94025
(415) 323-3009

Jim Crapuchettes, President and Chairman
Sole Proprietorship
Total employees: 6
Revenues, fiscal year end 1976: $200,000

COMPANY BACKGROUND:

- Frelan Associates was founded in 1970 by Jim Crapuchettes as a contract programming and consulting company specializing in scientific and data base applications. It will be incorporated as Menlo Computer Associates late this year.

OVERALL ASSESSMENT:

- Frelan Associates is one of those uncommon companies that is in business primarily for pleasure. All employees, including Crapuchettes, work for Frelan on a part-time or moonlighting basis. Despite this, revenues have doubled in the last year and are expected to continue to rise. There is no marketing staff or advertising budget. Work is acquired from repeat business and by word of mouth.

- Frelan specializes in non-business applications, offering programming and consulting services which address scientific, data base, and industrial process control lab needs. Although the company has considered offering its software packages and does offer a multiuser BASIC package for DEC PDP/11 equipment, it is concentrating on custom programming, consulting, and product development. Frelan consultants are available for last minute or overflow programming jobs.

KEY PRODUCTS AND SERVICES:

- Frelan's major product is contract programming and consulting for real time scientific and industrial applications. It also writes compilers and hardware interfaces on the following equipment: DEC PDP/8 and PDP/11, Systems Engineering Laboratory, Hewlett Packard, Modcomp, and Interdata minicomputers; IBM 360 and 370 mainframes; and assorted microcomputers.

- It currently has 10 clients.

- New products include an automated microscope stage unit used for typing blood and scheduled to be released in 1977.

COMPANY HIGHLIGHT/FRELAN ASSOCIATES

APPLICATIONS:

- Frelan's applications are 100% scientific and engineering oriented.

INDUSTRY MARKETS:

- Fifty-five percent of Frelan revenues are generated by the manufacturing industry. The medical/hospital industry generates 25%, education 10%, and government 10%.

GEOGRAPHIC MARKETS:

- All of Frelan's clients are located in the Pacific States.

COMPUTER HARDWARE AND SOFTWARE:

- Frelan has no inhouse hardware or software. All work is done at the customer site.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

February 1996

Friedman Associates

President & CEO: **Douglas Zahour**
104 Wilmot Road, Suite 200
Deerfield, IL 60015
Phone: **(847) 948-7180**
Fax: **(847) 948-9425**

Status:	Private
Employees:	90 (12/95)
Revenue:	$17,300,000
Fiscal Year End:	7/31/95

Key Points

- Friedman Associates is the developer of the HFA™ (High Function Application) System, an integrated software system for manufacturing and distribution applications.
- The company's fiscal 1995 revenue reached $17.3 million, a 10% increase over fiscal 1994 revenue.
- Friedman Associates is an IBM National Solution Provider/Application Specialist and has established regional LVP relationships throughout North America with IBM.

Company Description

Friedman Associates, founded in 1970, develops and implements software solutions for manufacturing, distribution and financial applications.

The HFA System includes AS/400 and client/server software solutions designed for make/assemble/engineer-to-order manufacturing, high-volume order processing and complex distribution operations.

Friedman Associates also provides full implementation support through its *COMPASS* program, a multistaged approach that includes project planning, application consulting, user training and software adaptation.

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Structure and Operations

Friedman Associates' corporate structure is broken down into four functional teams reporting to the managing partners, as follows:

- Sales and Marketing—This team provides all sales and pre-sales functions for the company's direct and affiliate sales organization. The corporate marketing staff produces sales and marketing literature, client communications and educational materials.
- Research and Development—The research and development team is responsible for developing new software, enhancing current products, ensuring quality control and documenting all software programs.
- Client Services—This team provides HFA clients with implementation planning, project administration, system analysis and design, business planning, migration/conversion assistance, custom programming and on and off-site training classes. The Customer Support Center provides dial-up customer helpline, technical support and services.
- Administration—This team provides accounting, human resources and contract administration services.

Company Strategy

The company's business strategy is to understand the ongoing needs of each customer; provide software, services and support that meets their needs; and promote long-term partnerships with their customers.

Friedman Associates focuses its application development efforts on multiplant, multidivision manufacturers with configured products and high-volume distributors.

In recent years, Friedman Associates has expanded the scope of its software solutions to include Windows-based client/server applications that work in conjunction with the HFA System. New products include Order*XPRESS* (remote sales force automation), Assembly Scheduling (production scheduling), and Quotation Control (for engineer and assemble-to-order product pricing/costing), as well as GUIView, a graphical interface for HFA System AS/400 character-based screens. The company is currently developing an open systems architecture client/server version of the HFA System. Availability is scheduled for 1997.

Financials

Friedman Associates' fiscal 1995 revenue reached $17.3 million. It is anticipated that fiscal 1996 revenue will reach $19 million. A five-year revenue summary follows:

Friedman Associates
Five-Year Revenue Summary
($ Millions)

	Fiscal Year				
Item	7/95	7/94	7/93	7/92	7/91
Revenue	$17.3	$15.6	$14.0	$12.0	$11.6
• Percent change from previous year	10%	10%	14%	3%	10%

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Market Financials

Approximately 60% of Friedman Associates' revenue is derived from discrete manufacturers, 10% from process manufacturers and 30% from distributors.

The company has clients in a variety of industries, from electronic equipment to metal products, commercial printing to wire and cable, sporting goods to windows and doors, furniture and cabinets to recreational vehicles.

Revenue Analysis by Product Line

Approximately 76% of Friedman Associates' fiscal 1995 revenue was derived from applications software and associated maintenance services and the remaining 24% from professional consulting services.

Revenue from applications software products and related services increased approximately 19% during fiscal 1995 over fiscal 1994.

Geographic Markets

Approximately 85% of Friedman Associates' fiscal 1995 revenue was derived from the U.S. and 15% from international sources.

Employees

As of December 31, 1995 the company had approximately 90 employees, segmented as follows:

Marketing and sales	18
Customer support	33
Research and development	29
Computer operations	3
General and administrative	7
	90

Key Products and Services

Friedman Associates' HFA System is designed for IBM AS/400 computers and is used by more than 400 companies worldwide.

The HFA Manufacturing System is a fully integrated MRP II software solution that streamlines production planning and control. Functionality includes Master Scheduling, Material Requirements Planning, Capacity Requirements Planning and Just-In-Time capabilities for make-to-stock, make-to-order and mixed-mode manufacturers. Modules include:

- MPS/MRP/CRP
- Shop Floor Control
- Forecasting
- Engineering Records
- Costing
- Assembly Scheduling

The HFA ATO System features enhanced customer service and production capabilities for companies who use a combination of discrete, repetitive, make-, assemble-, or engineer-to-order processes. The system simplifies order entry, performs on-line inventory and engineering checks, generates accurate pricing and automatically creates work orders. Modules include:

- Master Editor
- Product Configurator
- Pricing/BOM Calculator
- Sales Analysis
- Order*XPRESS* remote order entry

The HFA Distribution System upgrades order entry productivity and work flow by increasing accuracy, improving record keeping and providing greater control of the distribution activities throughout a multiple division, multiple warehouse organization. Modules include:

- Customer Order Processing
- Inventory Management
- Distribution Resource Planning
- Purchasing and Receiving
- Sales Analysis

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- Warehousing Control
- Order*XPRESS* remote order entry

The HFA Financial System is designed to handle a high volume of activity from multiple companies or divisions. This fully-integrated system collects information from all company operations and generates detailed reports needed to monitor and analyze business activities. Financial modules include:

- General Ledger
- Accounts Receivable and Credit
- Accounts Payable
- Multicurrency

Friedman Associates provides support services in the following areas:

- Implementation support
- Business consulting
- Project planning
- Telephone support
- User training

Marketing and Sales

Friedman Associates' products are targeted to multiplant, multidivision manufacturers and distributors. They are marketed and supported directly Friedman Associates and its international affiliates.

The company's software sales team provides all sales and presales functions for its direct and affiliate sales organization. Current international affiliates are in the U.K. and Canada.

Clients

Some of Friedman Associates' clients include Kirsch, BIC, ERO Industries, Milgard Manufacturing, Titleist, Radio Flyer, Giro Sport Design, Perseco, Wabash National, St. Ives Labs, Acer Inc., Dunlop and Jayco, Inc.

Alliances

Friedman Associates maintains strategic partnerships with:

- Global Software (general ledger)
- mrc (4GL development tool)
- Silvon (sales analysis system)
- Optimum Solutions (payroll, human resources and applicant tracking)

Competition

The company's major competitors include J.D. Edwards and System Software Associates.

INPUT Assessment

Friedman Associates' major strength lies in its suite of software offerings for the AS/400. The company is well-positioned in the assemble-to-order market and has been successful in meeting the order processing needs of its customers.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

June 1994

Friedman Associates

President & CEO: Herbert Friedman
108 Wilmot Road
Deerfield, IL 60015
Phone: (708) 948-7180
Fax: (708) 948-9425

Status:	Private
Employees:	120 (12/93)
Revenue:	$ 14,000,000
Fiscal Year Ending:	12/31/93

Key Points

- Friedman Associates is the developer of the HFA™ system, an integrated package for manufacturing and distribution applications.
- The company's 1993 revenue reached $14 million, a 17% increase over 1992.
- In 1994, Friedman Associates acquired Merlin Software Specialists of San Ramon (CA), an AS/400 consulting and training firm.
- In July 1993, the company formed a business partnership with Global Software, Inc. of Raleigh (NC), as part of its Connectivity Policy, to market the Global General Ledger, a financial management system for the IBM AS/400.

Company Description

Friedman Associates, formed in 1970, develops, markets and supports the HFA™ (High Function Application) System of integrated manufacturing, distribution and financial applications for IBM AS/400.

The integrated software includes order processing, entry and production control, accounts payable/receivable and inventory

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control. Custom applications software, programming aids software and productivity software are also provided by contract.

Structure and Operations

Friedman Associates' corporate structure is broken down into four functional groups reporting to the president, as follows:

- Software Sales—This group provides all sales and pre sales functions for the company's direct and affiliate sales organization.
- Development and Marketing—The research and development staff is responsible for developing new software, enhancing current products, ensuring quality control and documenting all software programs. The corporate marketing staff produces sales and marketing literature, client communications and educational materials.
- Client Services—This group provides HFA clients with implementation planning, project administration, system analysis and design, business planning, migration/conversion assistance and on and off-site training classes. The Customer Support Center provides dial-up customer helpline, technical support and custom programming services.
- Administration—This group provides accounting, human resources and contract administration services.

Company Strategy

The company's strategy is to understand the needs of each customer, provide the software, services and support that meets their needs and promote long-term relationships.

Friedman Associates has focused its application development efforts on multi-plant, multi-division manufacturers and distributors. The company's HFA System is primarily targeted toward three markets:

- Make/assemble/finish-to-order manufacturing
- MRP II manufacturing with complex distribution
- Medium- to high-volume distribution

The company has internalized its West Coast support function by acquiring Merlin Software Specialists of San Ramon (CA) in an attempt to meet the demands and provide a higher level of service to its growing customer base.

Friedman Associates is focusing on expanding the scope of its HFA System and has recently established a Connectivity Policy program in an effort to integrate software and hardware from third-party vendors. Under this program, the company encourages its customers to nominate products that they want included in the integrated package.

Financials

Total 1993 revenue reached $14 million, a 17% increase over 1992 revenue of $12 million. It is anticipated that 1994 revenue will reach $16 million. A five-year financial summary appears on the following page.

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Friedman Associates
Five-Year Financial Summary
($ Millions)

Item	Fiscal Year				
	1993	1992	1991	1990	1989
Revenue	$14.0	$12.0	$11.6	$10.5	$6.0
• Percent increase from previous year	17%	3%	10%	75%	71%

The company attributes 90% of revenue growth for 1993 and 1992 to a rise in sales and the remaining 10% to its acquisition of Merlin Software Systems.

Research and development expenditures were approximately $2.4 million (17% of revenue) in 1993, compared to $2.0 million (14% of revenue) in 1992, and $1.9 million (14% of revenue) in 1991.

Market Financials

Approximately 60% of Friedman Associates' revenue is derived from discrete manufacturers, 10% from process manufacturers and 30% from distributors.

The company has clients in metal products, electrical machinery, food processing, commercial printing, building products, publishing, wire and cable, capital equipment, sporting goods, pharmaceuticals, medical supplies, transportation, furniture and fixtures, electronic equipment, recreational vehicles, computers, automotive products, health and beauty products, office equipment, chemical products, tools and agricultural products.

Revenue Analysis by Product Line:

Approximately 76% of the company's 1993 revenue was derived from application software and associated maintenance services and the remaining 24% from professional services consulting.

Revenue from applications software products and related services increased approximately 19% in 1993 over that of 1992. This revenue is estimated to grow at least 14% in 1994 over 1993 levels.

Geographic Markets

Approximately 85% of the company's 1993 revenue was derived from the U.S. and 15% from international sources.

Acquisitions

Recent acquisitions made by Friedman Associates include the following:

- In February 1994, Friedman Associates acquired Merlin Software Specialists of San Ramon (CA). The acquisition was accounted for as a purchase.
  - Merlin is an AS/400 consulting and training firm.

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- Merlin had approximately 10 employees at the time of the acquisition.

- The operations of Merlin have been merged into Friedman Associates.

Employees

As of December 31, 1993 the company had approximately 120 employees, segmented as follows:

Marketing and sales	20
Customer support	67
Research and development	21
Computer operations	3
General and administrative	9
	120

- The company currently has 124 employees.

Key Products and Services

Friedman Associates' HFA System is designed for IBM AS/400 computers and is used by 300 clients worldwide.

The HFA Manufacturing System provides production planning and control for discrete and process manufacturing plants in just-in-time environments, and in make-to-stock, make-to-order, or assemble-to-order industries. Modules include:

- Engineering Records and Standard Costing
- Master Production Scheduling and Material Requirements Planning
- Manufacturing Reporting and Control

The HFA ATO (Assemble-to-Order) System features enhanced customer service and production capabilities for manufacturers who make/assemble/finish products to customer specifications from multiple models and options.

- This configuration-based system provides a direct link between order processing and manufacturing to take customer order data and automatically create a final assembly order without the need for part numbers and bills of material.

The HFA Distribution System upgrades order entry productivity and work flow by increasing accuracy, improving record keeping and providing greater control of the distribution activities throughout a multiple division, multiple warehouse organization. Modules include:

- Customer Order Processing
- Inventory Management
- Distribution Resource Planning
- Purchasing and Receiving
- Sales Analysis
- Warehousing Control
- Order XPRESS remote order entry

The HFA Financial System is designed to handle a high volume of activity from multiple companies or divisions. This fully-integrated system collects information from all company operations, improves cash flow and generates detailed reports needed to monitor and analyze business activities.

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Financial Modules include:

- General Ledger
- Accounts Receivable and Credit
- Accounts Payable
- Payroll and Personnel
- Multicurrency

Friedman Associates provides support services in the following areas:

- Implementation support
- Business consulting
- Project planning
- Telephone support
- User training

Marketing and Sales

Friedman Associates' products are targeted to multi-plant, multi-division manufacturers and distributors and are marketed and supported directly and by its international affiliates.

The company's Software Sales group provides all sales and presales functions for its direct and affiliate sales organization. Current international affiliates are in the U.K. and Canada.

Clients

Some of Friedman Associates' clients include—Kirsch, Healthometer, Acer, Bausch & Lomb, St. Ives Laboratories, ITT Cannon, Titleist, Pepsico, Veratex Corporation and Jayco, Inc.

Alliances

In July 1993, Friedman Associates signed a marketing agreement with Global Software, Inc. of Raleigh (NC) to add Global's general ledger accounting software technology to the company's HFA System integrated software package for IBM's AS/400 minicomputers.

- This product enhancement was part of Friedman's established Connectivity Program, an effort to increase HFA System's usability by adding products developed by third-party vendors.
- The Connectivity Program also includes:
  - MRC Productivity Series 4GL development tools
  - Intermec data collection and bar coding equipment
  - Silvon SalesTracker sales analysis system

Competition

The company's major competitors include Andersen Consulting and System Software Associates.

INPUT Assessment

The company's major strength lies in its suite of software offerings for the AS/400. The company is well positioned in the assemble-to-order market and has been successful in meeting the order processing needs of its customers.

The challenge the company faces is to provide a total solution to its customers. The company is addressing this issue by strategically introducing the Connectivity Policy program. This program not only enables the company to expand the scope of its HFA System, but by integrating customer products into its own system,

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Friedman is satisfying customer needs in ways that its own applications may not. This effort will definitely result in higher customer satisfaction levels for the company.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

August 1996

Frontier Technologies Corporation

CEO: Dr. Prakash Ambegaonkar
10201 N. Port Washington Rd.
Mequon, WI 53092
Phone: (414) 241-4555
Fax: (414) 241-7084
Internet: http://www.frontiertech.com

Status:	Private
Employees:	130
Revenue:	$15,000,000*
Fiscal Year End:	12/31/95

** INPUT estimate*

Company Description

Frontier Technologies Corporation, formed in 1982, is a provider of Internet and intranet networking applications for Microsoft Windows, Windows 95, and Windows NT environments.

Organization and Structure

Frontier Technologies is headquartered in Mequon (WI).

The company operates an engineering office in Madision (WI) and maintains a public relations office in Tucson (AZ).

Frontier Technologies also has an Asian office, located in Shivaji Nagar, India.

Company key executives are listed below.

Frontier Technologies Corporation
Key Executives

Name	Title
Prakash Ambegaonkar	CEO
Geoffrey Hibner	CFO
Erv Bluemaer	VP

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Company Strategy

Frontier Technologies' mission is "to pioneer Internet and intranet applications that make individuals more productive and businesses more competitive in a global market."

Financials

INPUT estimates that Frontier Technologies' 1995 revenue was approximately $15 million.

Market Financials

The company offers a range of software products suited for large corporations, small to medium-sized businesses, and government users.

Geographic Markets

Approximately 70% of Frontier Technologies' revenues came from the U.S. market, and the remaining 30% came from international markets.

Employees

As of July 1996, Frontier Technologies had approximately 150 employees worldwide.

The company currently has 130 employees.

Key Products and Services

Frontier Technologies product offerings include those developed for TCP/IP connectivity, Internet and search products, intranet, and Web server products.

TCP/IP Connectivity

SuperTCP Suite 96 is an integrated solution that turns PCs into full members of the corporate network utilizing the TCP/IP multiplatform communications protocol.

- By implementing the SuperTCP Suite 96 CD, users can migrate from Windows 3.11 to Windows 95 or NT.
- Users can access and share information anywhere on their internal network and the Internet using SuperTCP's four dozen applications, which support intra- and inter-network communications, Internet information management, mainframe and minicomputer host access, and network administration.

SuperTCP Suite 96 is comprised of the following components:

- *SuperTCP/NFS*, an NFS client/server that provides shared file access and remote printing via the Network File System and also allows for file and directory access restriction. SuperTCP/NFS offers a complete set of network applications, including NFS Client and Server, Drag and Drop File Transfer, Internet Access, Host Access, MIME and MAPI E-mail, LPD/LPR printing, and fax Client/Server.
- *SuperTCP* provides Internet access from an organization's network and includes a 32-bit VxD TCP/IP kernel, in addition to a suite of applications including Internet Information Management and Host Access.
- *SuperTCP Internet* combines Internet Information Management with the SuperTCP Kernel. The package includes a Web browser, Gopher+, WAIS, CSO Phone Book, MIME and MAPI E-mail, Telnet, Drag and Drop File Transfer, and Internet News Reader, and allows users to access the Internet via dial-up or LAN.
- *SuperX* Window System Server turns a PC into an X Window terminal that lets the user define colors, fonts, keyboard mapping, host login, and configuration. SuperX provides aliases, substitutions, and compilation of fonts, and offers a variety of start-up options, including rsh, rexec, rlogin, and XDMCP.

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- *TCP/IP Stack for Windows 3.X* can access the Internet with any applications that compile with the Winsock standard. Two versions are available for the program: VxD Kernel, optimized for use on a LAN, and DLL Kernel, optimized for use on a dial-up configuration.

Internet and Search Products

CyberJunction is a client/server solution for Novell NetWare workgroups. This software package is an IPX-to-IP gateway that provides Internet and intranet connectivity without the need for TCP/IP on every desktop.

- CyberJunction allows users to access the Web and remote databases through an NT-based IPX-IP gateway, a process performed on an NT server, without any subsequent effects on the NetWare LAN.

- The software package is designed specifically for workgroups and includes a complete set of Frontier's TCP/IP and Internet applications, including a multiprotocol, commercial-grade browser, Internet organizer, SMIME E-mail, telnet emulation, FTP client/server, and remote utilities. Also available are Web server components of intranet Genie.

CyberSearch 2.0 for Windows 3.X, 95, and NT is an integrated Internet database, search engine, and bookmark organizer that allows users to conduct an off-line search from a Lycos catalog on CD-ROM.

- It then conduct simultaneous Internet sessions by downloading, viewing, and searching all at once.

- CyberSearch is compatible with all major Web browsers: Netscape Navigator, Microsoft Internet Explorer, NCSA Mosaic, and GNN GNNworks.

intranet Genie provides tools necessary to create an intranet solution without knowledge of HTML coding.

- On one CD-ROM, users have access to the client and server software required to install a secure, fully functional intranet.

- The product's components include Frontier Technologies' Windows NT-based SuperWeb Server, complete with advanced search capabilities and small applications, as well as client software, including an Internet browser, an enhanced version of Frontier's CyberSearch indexing and search engine, Web administration and authoring tools, and secure E-mail.

Web Server Products

SuperWeb Server for Windows NT allows users to transform existing enterprise communications into an intranet.

- SuperWeb Server features remote administration from any Windows desktop, a server that sustains thousands of hits per minute, a built-in WebDesigner for Web page creation, managed access for defining access levels, and an image map editor for image map creation.

- SuperWeb Server is available for $795.

Clients

Clients using Frontier Technologies products include AT&T, American Family, Barber-Coleman, Baptist Healthcare, Bell Atlantic, Charles Schwab, Glaxo, USF&G, Bell Canada, Union Bank of Switzerland, and government and defense organizations.

The company is also the exclusive supplier of TCP/IP under the Federal Desktop IV award and, with partners Zenith Data Systems and GTSI, more than 300,000 licenses of SuperTCP have been installed in the Air

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Force, Navy, and other government departments.

Marketing and Sales

Frontier Technologies products are available from more than 40 distributors worldwide, including Ingram Micro, Merisel, Tech Data, GBC, GTSI, Conec Ltd., and First Service.

The company markets its products using co-op marketing through channel partners, direct sales, OEMs, and print and direct advertising.

Alliances

Frontier Technologies' business partners include IBM, ComputAbility, LAN Magazine, Lycos, CyberCash, OpenConnect Systems, NetGuide, PSINet, RSA Data Security, CyberWISE, and Connect.

The company also is working with the Federal Security Infrastructure program's Paperless Federal Transactions For The Public Project, in an effort to provide citizens with the ability to conduct secure transactions with the federal government over the Internet.

Competition

The company's products compete with offerings from Quarterdeck, TGV, Attachmate, FTP, IBM, and NetManage.

INPUT Assessment

Frontier Technologies' strengths include:

- Complete and extensive TCP/IP solutions provided by SuperTCP Suite 96
- Partnership with the Federal Security Infrastructure program
- The introduction of intranet Genie to the fast-growing corporate intranet market
- Integration of client and server components

Challenges for the future include:

- Establishing brand identity and customer loyalty in the competitive intranet market
- Expanding and improving product lines, specifically server and intranet offerings

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FRIEDMAN & ASSOCIATES, INC.
108 Wilmot Road
Deerfield, IL 60015
Phone: (708) 948-7180
Fax: (708) 948-9425

Herbert Friedman, President
Private Corporation
Total Employees: 85
Total Revenue, Fiscal Year End
12/31/91: $11,600,000

The Company

Friedman & Associates, formed in 1970, markets and supports the HFA (High Function Application) System of integrated manufacturing, distribution, and financial applications for IBM AS/400 computers. The products are targeted to multi-plant, multi-division manufacturers and distributors and are marketed and supported by a worldwide network of affiliates.

The company's strategy is to understand the needs of each customer; provide the software, services, and support that meets their needs; and promote long-term relationships.

Friedman & Associates' 1991 revenue is estimated at $11.6 million, a 10% increase over 1990 revenue of $10.5 million. It is anticipated that 1992 revenue will reach $15 million. A five-year revenue summary follows:

FRIEDMAN & ASSOCIATES, INC.
FIVE-YEAR REVENUE SUMMARY
($ millions)

	FISCAL YEAR				
ITEM	1991	1990	1989	1988	1987
Revenue	$11.6	$10.5	$6.0	$3.5	$3.0

Major competitors include Andersen Consulting and System Software Associates.

Key Products and Services

Approximately 85% of Friedman & Associates' revenue is derived from applications software and associated maintenance services, 10% from professional services consulting, and 5% from education and training.

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Friedman & Associates HFA Systems are designed for IBM AS/400 computers and are used by over 200 clients worldwide.

The HFA Manufacturing System provides production planning and control for both discrete and process manufacturing plants, in just-in-time environments, and in make-to-stock, make-to-order, or assemble-to-order industries. Modules include:

- Engineering Records and Standard Costing
- Master Production Scheduling and Material Requirements Planning
- Manufacturing Reporting and Control

The HFA ATO (Assemble-to-Order) System features enhanced customer service and production capabilities for manufacturers who make/assemble/finish products to customer specifications from multiple models and options.

- This configuration-based system provides a direct link between order processing and manufacturing to take customer order data and automatically create a final assembly order without the need for part numbers and bills of material.

The HFA Distribution System upgrades order entry productivity and work flow by increasing accuracy, improving record keeping, and providing greater control of the distribution activities throughout a multiple division, multiple warehouse organization. Modules include:

- Customer Order Processing
- Inventory Management
- Distribution Resource Planning
- Purchasing and Receiving
- Sales Analysis
- Warehousing Control

The HFA Financial System is designed to handle a high volume of activity from multiple companies or divisions. This fully-integrated system collects information from all company operations, improves cash flow, and generates detailed reports needed to monitor and analyze business activities. Modules include:

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- General Ledger
- Accounts Receivable and Credit
- Accounts Payable
- Payroll and Personnel
- Multicurrency

Support services provided by Friedman & Associates include implementation support, business consulting, product planning, telephone support, and user training.

Industry Markets

Approximately 50% of Friedman & Associates revenue is derived from discrete manufacturers, 20% from process manufacturers, and 30% from distributors.

From its inception, Friedman & Associates has centered applications development on multi-plant, multi-division manufacturers and distributors. The HFA System is tailored to three target markets:

- Make/assemble/finish-to-order manufacturing
- MRPII manufacturing with complex distribution
- Medium- to high-volume distribution

Friedman & Associates has clients in metal products, electrical machinery, food processing, commercial printing, building products, publishing, wire and cable, capital equipment, sporting goods, pharmaceuticals, medical supplies, transportation, furniture and fixtures, electronic equipment, recreational vehicles, computers, automotive products, health and beauty products, office equipment, chemical products, tools, and agricultural products.

Geographic Markets

Approximately 90% of Friedman & Associates' 1991 revenue was derived from the U.S. and 10% from international sources.

Friedman & Associates is establishing a worldwide network of software firms licensed to sell and support HFA to clients in specific geographic regions. This network can also coordinate multi-site installations, both domestic and overseas.

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- Current U.S. affiliates are in New Jersey, Clearwater (FL), Memphis, Minneapolis, Dallas, Los Angeles, and San Francisco. Planned affiliates will be in Denver, Houston, Phoenix, Seattle, and Hawaii.

- Current international affiliates are in the U.K., the Netherlands, Germany, Belgium, France, Spain, and Italy.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program

June 1997

Frontier Technologies Corporation

10201 N. Port Washington Rd.
Mequon, WI 53092
Phone: (414) 241-4555
Fax: (414) 241-7084
Internet: http://www.frontiertech.com

CEO:	Dr. Prakash Ambegaonkar
Status:	Private
Employees:	130
Fiscal Year End:	12/31/96

Company Description

Frontier Technologies Corporation, formed in 1982, is a provider of Internet and intranet networking applications for Microsoft Windows, Windows 95, and Windows NT environments.

The company offers a range of software products designed for large corporations, small to medium-sized businesses, and government users.

Organization and Structure

Frontier Technologies is headquartered in Mequon (WI).

The company operates an engineering office in Madison (WI), a public relations office in Tucson (AZ), and sales offices in Washington, D.C. and McHenry (IL).

Frontier Technologies also has an Asian office located in Shivaji Nagar (India).

Key company executives are listed below.

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Frontier Technologies Corporation

Key Executives

Name	Title
Prakash Ambegaonkar	Chairman and CEO
Sunandini Ambegaonkar	CFO
John Moehrke	Director of Engineering
Ray Langford	Director of Research and Development

Employees

As of June 1997, Frontier Technologies has approximately 130 employees worldwide.

Company Strategy

Frontier Technologies' mission is "to pioneer Internet and intranet applications that make individuals more productive and businesses more competitive in a global market."

Geographic Markets

Approximately 70% of Frontier Technologies' 1996 revenue was derived from the U.S. market, and the remaining 30% came from non-U.S. markets.

Key Products and Services

Frontier Technologies' product offerings include public key-based Internet and intranet security software, information management and information retrieval software, and complete TCP/IP connectivity. Frontier Technologies has developed technologies intended to connect traditional client/server environments to the Web.

Trademarks of Frontier Technologies Corporation include: e-Lock, e-Cert, e-Mail, e-Sign, CyberSearch, CyberSearch Assistant, Emulator Plus, Global QuickSearch, Internet Organizer, SuperTCP Suite, SuperTCP/NFS, SuperNFS, SuperTCP, and SuperX.

e-Lock™ Product Family

e-Lock™ allows companies to sign and encrypt secure documents such as purchase orders or contracts, to secure e-mail, and to implement certificate-issuing systems. e-Lock includes a number of security products that work with Frontier Technologies' Internet/intranet tools, on a standalone basis, or with other Internet/intranet tools. These products include:

- *e-Cert* Certificate Issuing System—e-Lock's Web-based Certificate Issuing System allows a company to issue, revoke, renew, and manage public-key certificates.
- *e-Sign* File Signing System—Protects confidentiality by allowing any type of file to be digitally signed and/or encrypted using the user's certificate.
- *e-Mail*—For store-and-forward applications like e-mail where the exchange of secure messages is required, the Secure Multipurpose Internet Mail Extensions (S/MIME) protocol allows users to both encrypt and digitally sign e-mail.
- Web Applications—e-Lock supports industry standard protocols to support communications throughout an intranet and over the public Internet.
- Optional Secure Browser—The e-Lock browser is SSL compliant. The user can access secure Web servers using a certificate-authenticated digital signature or password authentication.
- Optional Secure Web Server—The NT-based Web server is provided with SSL compliant e-Lock. Viewers with secure browsers can access the server using their signatures, rather than usernames and passwords.

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- Hardware Token Interface—Public-key certificates issued by the Certificate Issuing System can be delivered to the user's hard drive or initialized onto hardware tokens.

TCP/IP Connectivity
SuperTCP Suite 3.0 combines key TCP/IP, Internet, and intranet applications in a single product.

SuperTCP's has four dozen applications, which support intra- and inter-network communications, Internet information management, mainframe and minicomputer host access, and network administration. Users can migrate from Windows 3.11 to Windows 95 or NT using the SuperTCP Suite 3.0 CD.

SuperTCP Suite 3.0 is comprised of the following components:

- *CyberSearch* is a one-stop information retrieval/information management tool for searching, organizing, and monitoring all documents across the intranet, the Internet, and a user's own desktop.

- *The DNS Server* administers IP addresses on the network, using multi-threading to receive and reply to client queries.

- *The News Discussion Server* facilitates discussions so that users can effectively conduct and be involved in ongoing topical discussions and can follow progressions of multiple topics. The Administrator can create, delete, and display basic information about the discussion groups, and can also configure access restriction and article expiration parameters.

- *SuperTCP/NFS* is an NFS client/server that provides shared file access and remote printing via the Network File System and also allows for file and directory access restriction.

- *SuperTCP* provides Internet access from an organization's network and includes a 32-bit VxD TCP/IP kernel, in addition to a suite of applications that includes Internet information management and host access.

- *SuperTCP Internet* combines Internet information management with the SuperTCP Kernel. The package includes a Web browser, Gopher+, WAIS, CSO Phone Book, MIME and MAPI E-mail, Telnet, Drag and Drop File Transfer, and Internet News Reader, and allows users to access the Internet via dial-up or LAN.

- *SuperX* Window System Server allows users to define colors, fonts, keyboard mapping, host login, and configuration.

- *TCP/IP Stack* for Windows 3.X, Windows 95, and Windows NT can access the Internet with any application that complies with the Winsock standard. Two versions are available for the program: VxD Kernel, for use on a LAN, and DLL Kernel, for use on a dial-up configuration.

Information Management/Information Retrieval
CyberSearch 3.0 information manager/information retrieval for Windows 3.1x, 95, and NT provides a single 32-bit desktop client/server application for searching, monitoring, and organizing all documents on the Internet, corporate intranets, or the user's own desktop.

CyberSearch runs on any TCP/IP network and supports all Web browsers, including Netscape Navigator, Microsoft Internet Explorer, NCSA Mosaic, and GNN GNNworks. Some of the features included in CyberSearch 3.0 are:

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- One-Stop Metasearch
- Personal Computer Search
- CyberSearch
- Search Assistants
- Monitoring Critical Information
- Secure Site Access

Marketing and Sales

Frontier Technologies distributes its products through more than 40 distributors worldwide, including Ingram Micro, Merisel, Tech Data, GBC, GTSI, Conec Ltd., and First Service.

The company markets its products using co-op marketing through channel partners, direct sales, OEMs, and print and direct advertising.

Clients

A sampling of clients include American Family Insurance, Barber-Coleman, Burger King Corporation, Bell Atlantic, Charles Schwab, Kmart, Motorola, Sprint, T.S. Lipton, Union Bank of Switzerland, UNICEF, New York Stock Exchange, and government and defense organizations.

The company is also the exclusive supplier of TCP/IP under the Federal Desktop IV award and, with partners Zenith Data Systems and GTSI, more than 300,000 licenses of SuperTCP have been installed in the Air Force, Navy, and other government departments.

Alliances

Frontier Technologies' business partners include IBM, ComputAbility, Microsoft, Lycos, CyberCash, OpenConnect Systems, Milky Way, NetGuide, PSINet, RSA Data Security, CyberWISE, Connect, and Verity.

The company also is working with the Federal Security Infrastructure program's Paperless Federal Transactions For The Public Project in an effort to enable citizens to conduct secure transactions with the federal government over the Internet.

Competition

The company's products compete with offerings from Quarterdeck, Attachmate, FTP, NetManage, Netscape, Xcert, and Entrust.

INPUT Assessment

Integrating TCP/IP client/server environments with the Web is proving to be one of Frontier Technologies' strengths.

With unprecedented growth for the implementation of security technology in the corporate market predicted in 1997, Frontier Technologies feels that its experience and success in providing comprehensive, one-stop solutions for the intranet market positions it well for the implementation of security technology in the corporate market.

Frontier Technologies' primary challenge is the increasing competition in the security market. In addition, as there is always concern about larger companies that are able to roll out new products quickly, Frontier Technologies is constantly being challenged to produce unique, niche products that support open standards.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

October 1996

Fulcrum Technologies, Inc.

Chairman: Thomas I. Csathy
President & CEO: Eric R. Goodwin
785 Carling Avenue
Ottawa, Canada K1S 5H4
Phone: (613) 238-1761
Fax: (613) 238-7695
Internet: http://www.fulcrum.com

Status:	Public
Employees:	306 (10/15/96)
Revenue:	$42,935,000 ($ Cdn.)
Fiscal Year End:	12/31/95

Key Points

- Fulcrum Technologies, Inc. is a leading international information retrieval software company.
- In March 1996, the company announced two new products: SearchBuilder EXPRESS™, a customizable desktop interface for SearchServer applications, and Fulcrum FIND!, an information search-and-retrieval product.
- In December 1995, Fulcrum opened an office in Sydney (Australia), beginning the company's expansion into the Asia/Pacific region.
- In December 1995, Fulcrum expanded its European operations, opening a second office in Italy.
- During 1995, Fulcrum strengthened its new product development efforts by increasing the number of developers dedicated to working on Internet and intranet products.

Company Description

Fulcrum, founded in 1983, is engaged in the research, development, and marketing of text retrieval software.

Fulcrum licenses the use of its software to major corporations and other large

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organizations to enable them to access their intellectual capital stored on computer networks.

In May 1996, Fulcrum announced a two-for-one split of its common stock, which was distributed in June 1996.

Organization and Structure

Approximately 58% of Fulcrum Technologies' outstanding common shares are beneficially owned by Datamat Ingegneria dei Sistemi S.p.A, an Italian corporation. Approximately 76% of Datamat is owned by Banca di Roma.

Fulcrum Technologies' worldwide headquarters is located in Ottawa (Canada).

The company also maintains wholly owned subsidiaries in the U.S. (Fulcrum Technologies Corp. and Trip Systems International), Italy (Fulcrum Italia S.p.A), France (Fulcrum S.A. and Fulmedia S.A.), the U.K. (Fulcrum Technologies Limited), and Australia (Fulcrum Technologies Pty. Limited).

The company has North American sales offices in Atlanta (GA), Burlington (MA), Chicago (IL), Houston (TX), McLean (VA), New York (NY), Los Angeles and San Francisco (CA), and Toronto (Ontario).

Fulcrum's European sales offices are located in London (England), Paris (France), Frankfurt and Munich (Germany), and Milan and Rome (Italy).

The company also has an Asia/Pacific sales office located in Sydney (Australia).

Fulcrum's key executives are listed in the following exhibit.

Fulcrum Technologies, Inc.
Key Executives

Name	Title
Thomas I. Csathy	Chairman
Eric R. Goodwin	President & CEO
Michael L. Laginski	EVP & COO
Peter C. Reid	VP Finance & CFO
E. Peter Eddison	VP Corporate Marketing
David R. Haskins	VP Research & Development
W. David Keys	VP Corporate Development & General Counsel
Fabrizio Mignini	VP European Sales
Larry J. Trenwith	VP U.S. Sales

Company Strategy

Fulcrum's strategy in 1996 is "to achieve true market dominance."

The company's mission, according to Peter Klante, Fulcrum's vice president of marketing, is to provide software that bridges the 'islands of information' across the enterprise—by addressing corporate-wide requirements for simultaneous, distributed search-and-retrieval capabilities for the World Wide Web, groupware, and traditional client/server systems, based on Internet and industry standards.

Financials

Fulcrum's 1995 revenue reached $42.9 million, an increase of 59% over 1994 revenue of $27.0 million. Net income was $5.3 million in 1995, a 36% increase over net income of $3.9 million in 1994.

A three-year financial summary is shown on the following page. Unless otherwise stated, all dollars are Canadian.

Research and development expenditures were approximately $5.7 million (13% of revenue) in 1995, an increase of 71% over expenditures of $3.3 million (12% of revenue) in 1994.

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Fulcrum Technologies, Inc.
Three-Year Financial Summary
($ Millions, Cdn, except per-share data)

	Fiscal Year		
Item	1995	1994	1993
Revenue	$42.9	$27.0	$17.6
• Percent change from previous year	59%	53%	N/A
Income before taxes	$8.4	$5.8	$1.2
• Percent change from previous year	45%	383%	N/A
Net income	$5.3	$3.9	$0.9
• Percent change from previous year	36%	333%	N/A
Earnings (loss) per share	$0.77	$0.59	$0.17
• Percent change from previous year	31%	247%	N/A

Revenue Analysis by Product/Service

Fulcrum's revenue is derived from two sources: the licensing of full-text retrieval software and the provision of related services.

Revenue from license fees increased 51% to $34.4 million in 1995, up from $22.8 million in 1994. Services revenue increased 103% to $8.5 million in 1995, up from $4.2 million in 1994.

A three-year source of revenue summary is shown on the following page.

License fees consist of fees earned under license agreements with OEMs, VARs, other resellers, and end users. The company recognizes revenue from license fees when the customer has signed a license agreement and when deliverables, if any, have been shipped.

- As a percentage of total revenue, revenue from license fees totaled 80% and 84% in 1995 and 1994, respectively.
- License fees from SearchServer were approximately $28.4 million (83% of total license fee revenue) in 1995, compared with $12.2 million (54% of total license fee revenue) in 1994.
  - Increases in SearchServer revenue were attributed to increased marketing and sales efforts, leading to new customers.
  - License fees from Ful/Text were approximately $5.4 million (16% of total license fee revenue) in 1995, compared with $10.6 million (46% of total license fee revenue) in 1994.
  - The decrease in Ful/Text revenue during 1995 was consistent with the increased marketing focus on the company's SearchServer product family.

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Fulcrum's services revenue consists of revenue from product maintenance, consulting, and training. Maintenance revenues are recognized over the period of a contract. Revenue from consulting and training is recognized in the period the services are provided.

As a percentage of total revenue, revenue from services totaled 20% and 16% in 1995 and 1994, respectively.

Fulcrum Technologies
Three-Year Source of Revenue Summary
($ Millions, Cdn)

	Fiscal Year					
	1995		1994		1993	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
License fees	$34.4	80%	$22.8	84%	$15.1	86%
Services	8.5	20%	4.2	16%	2.5	14%
Total	$42.9	100%	$27.0	100%	$17.6	100%

Interim Results

Revenue for the six months ending June 30, 1996, was $27.5 million, an increase of 81% over revenue for the same period the previous year. Net income for the period was $1.6 million, a 71% increase over the same period in 1995.

During the period, the company's research and development expenditures rose to 20% of total revenue.

Market Financials

Fulcrum Technologies' key target market segments are collaborative computing, which includes document information solutions, groupware, and publishing, both commercial and corporate.

Geographic Markets

Fulcrum Technologies conducts its North American operations from its Canadian headquarters, which also includes the operations of the domestic Canadian market as well as the Asia/Pacific region. Canadian operations accounted for approximately $23 million in 1995 revenue.

In 1995, approximately 49% of total revenue was derived from sources outside North America, compared to 41% in 1994 and 38% in 1993.

The company operates in Europe through four wholly owned subsidiaries. European operations accounted for approximately $20.0 million in 1995 revenue, a 150% increase from 1994.

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Fulcrum Technologies, Inc.
Three-Year Geographic Source of Revenue Summary
($ Millions, Cdn)

	Fiscal Year					
	1995		1994		1993	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Canadian (a)	$22.9	53%	$19.0	70%	$13.1	70%
European	20.0	47%	8.0	30%	5.6	30%
Total	$42.9	100%	$27.0	100%	$18.7	100%

(a) Includes operations of the domestic Canadian market , the U.S., and the Asia/Pacific region.

Acquisitions

In December 1995, Fulcrum acquired all the issued and outstanding shares of Trip Systems International (TSI) for approximately $6.3 million.

- TSI is a U.S.-based developer of the Trip family of systems software products.
- This acquisition has helped to build relationships with a number of new key distributors in strategic geographic regions such as Germany, the U.K., Scandinavia, and Japan.
- The transaction was accounted for as a purchase.

In June 1995, Fulcrum acquired 20% of the voting stock of Passage Systems, Inc. for approximately $1.9 million (US$1.4 million) in cash.

- Passage Systems is a provider of SGML-based publishing solutions.
- Passage Systems is a U.S. company based in California.

Also in June 1995, Fulcrum acquired all the issued and outstanding shares of Fulmedia S.A. for an aggregated price of $2.1 million (US$1.5 million).

- Fulmedia S.A. is a systems integrator located in France.
- The acquisition was accounted for as a purchase.

Employees

As of January 1, 1996, Fulcrum Technologies had 250 employees.

The company currently has 306 employees, segmented as follows:

Marketing and sales	134
Customer services	34
Research and development	102
Finance and administrative	36
	306

Key Products and Services

Fulcrum SearchServer 3.0

Fulcrum SearchServer is a multiplatform indexing and retrieval search engine for custom information-retrieval applications. SearchServer makes use of an SQL-based query language and complies with Open Database Connectivity (ODBC), so that it can

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be used in information-retrieval applications that combine with customers' existing information systems.

Version 3.0 features linguistic tools that provide natural-language searching, proximity searching, a built-in thesaurus, hypertext links, and search term highlighting.

SearchServer supports multiple platforms, including Microsoft Windows 3.x, Windows 95, Windows NT, and many UNIX systems.

Fulcrum SearchBuilder

Fulcrum SearchBuilder toolkits are companion products that integrate with graphical development tools so that MIS professionals and third-party developers can work in familiar environments like Visual Basic, Visual C++, and PowerBuilder to build client/server information-retrieval applications that access Fulcrum SearchServer.

Fulcrum SearchBuilder EXPRESS

SearchBuilder EXPRESS line-of-business units allow for the deployment of information retrieval solutions with no programming. SearchBuilder EXPRESS has an instant user interface requiring no custom programming at all.

Fulcrum Surfboard 2.0 for Windows NT

Fulcrum Surfboard is Fulcrum's open and scalable search engine for deployment on a corporate intranet and on external Web sites.

Surfboard combines SearchServer's indexing and retrieval engine with Internet access protocols enabling Web browsers and other common Internet clients to search through corporate information repositories.

Surfboard provides automatic conversion to HTML and supports Microsoft ActiveX controls.

Fulcrum Surfboard supports a variety of Web servers, including Netscape Communications Server, Netscape Commerce Server, MS Internet Information Server, O'Reilly & Associates Website, Purveyor, and any CGIBIN-compatible server.

Fulcrum FIND!

Fulcrum FIND!, introduced in March 1996, allows users to search through Microsoft Exchange Server information, including files, discussion items, attachments, and form data.

Fulcrum FIND! integrates SearchServer technology with Microsoft Exchange Server to provide search and retrieval to corporate users.

Clients

Fulcrum's products are used in a number of applications by a variety of companies, including the following:

Help Desk/Customer Support

Answer Computer, Astea International, Compaq, Clarify, Dun & Bradstreet Software Services, Gateway 2000, Microsoft, Software Artistry, and Novell

CD ROM and On-Line Publishing

CompuServe, Hewlett-Packard, 1I Sole 24 Ore, The Microsoft Network, Sun Microsystems, Silicon Graphics, The Gartner Group, and Video On Line

Imaging and Document Management

Eastman Kodak, Intergraph, Interleaf, Passage Systems, SAROS, and Wang Laboratories

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Litigation and Legal Services

Arthur Andersen and Company—Litigation Services Division, Clifford Chance, Davis, Polk, & Wardwell, and McMillan Binch

Press

Agence France Press and L'Express

Corporate Knowledgebases

Aeroporti di Roma, AT&T Global Information Solutions, Banca di Roma, Carnegie Mellon University, European Union, Georgia Pacific, Industry Canada, OECD, and Portland Electric

Marketing and Sales

Fulcrum markets its products and services through a direct sales force as well as indirect sales channels through its Fulcrum Alliance Partner program, which includes more than 200 VARs, OEMs, and ISVs.

The company has 18 sales and service offices in key business centers in North America, Europe, Japan, and Australia.

Alliances

In July 1996, Fulcrum and Fujitsu Limited announced an agreement to form a joint venture, named Nihon Fulcrum KK, to market information search-and-retrieval software in Japan.

- The company is minority-owned (30%) by Fujitsu and majority-owned (70%) by Fulcrum.
- The company began operations in July 1996.
- The companies have invested a combined total of 100 million Japanese yen (approximately US$900,000) to establish the joint venture.
- Prior to the agreement, the two companies had spent two years in a combined effort to develop a Japanese version of Fulcrum's SearchServer™ text-indexing and retrieval software product.

Competition

Fulcrum Technologies competes with Verity, Excalibur Technologies, Information Dimensions, Personal Librarian Software, Dataware Technologies, and Open Text in the indexing and search-and-retrieval market.

Assessment

Fulcrum Technologies considers its strengths to include:

- Very fast and scalable information retrieval engine with ODBC interface
- Comprehensive, powerful toolsets for developing information retrieval applications
- Proven ability to deliver complete solutions to enterprise-level information management problems with a very high degree of customer satisfaction
- Two hundred Alliance Partners delivering value added applications and services
- Strong financial position, with a record of continuous growth and profitability

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FINANCIAL UPDATE TO PROFILE DATED MAY 1985

FUNDSNET, INC.
385 Nordhoff Place
Englewood, NJ 07631
(201) 569-7764

Frederick Galland, Chairman,
President, and CEO
Public Corporation, OTC
Total Employees: 200
Total Revenue, Fiscal Year End
12/31/85: $14,990,484

FUNDSNET, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

FISCAL YEAR / ITEM	1985	1984	1983	1982	Pro Forma 1981 (a)
Revenue	$14,990	$11,833	$9,473	$7,307	$5,010
. Percent increase from previous year	27%	25%	30%	46%	47%
Income (loss) before taxes	$ 533	$ (112)	$1,047	$ 713	$ 481
. Percent increase (decrease) from previous year	576%	(111%)	47%	48%	21%
Net income	$ 333	$ 122	$ 618	$ 373	$ 287
. Percent increase (decrease) from previous year	173%	(80%)	66%	30%	30%
Earnings per share	$ 0.10	$ 0.04	$ 0.22	$ 0.13	$ 0.10
. Percent increase (decrease) from previous year	150%	(82%)	69%	30%	25%

(a) The pro forma figures have been adjusted to present the operating results of the period as if FundsNet, Inc. had been formed and Dial-A-Check Division acquired on January 1, 1980.

- FundsNet's consumer-based electronic funds transfer business within the leisure industry accounted for 65% of the revenue increase during 1985. The Merchant Services Division's bank card processing business accounted for over 25% of 1985 revenue growth. Transportation Services grew 7% in transaction volume; however, revenue increases were small due to price competition.

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SOURCE OF REVENUE

- One hundred percent of FundsNet's 1985 revenue was derived from processing services. FundsNet provides electronic funds processing and transfer services to the transportation industry and to the consumer public at non-banking leisure establishments such as hotels, casinos, and race tracks. Credit card processing services are provided to banks and retail outlets.

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COMPANY PROFILE

FUNDSNET, INC.
385 Nordhoff Place
Englewood, NJ 07631
(201) 569-7764

Frederick Galland, Chairman
Kenneth Payne, President
Public Corporation, OTC
Total Employees: 190
Total Revenue, Fiscal Year End
12/31/84: $11,832,428

THE COMPANY

- FundsNet, Inc., founded in 1980, provides electronic funds processing and transfer services to the transportation industry and the consumer public and provides credit card processing services to retail establishments and the travel and entertainment industry.

  - FundsNet was incorporated in Delaware on October 29, 1980 for the purpose of acquiring certain assets and liabilities of the non-banking electronic funds transfer business of the Dial-A-Check Division of Graphic Scanning Corp. (Graphic).

  - On February 19, 1981 FundsNet made a public offering of 2 million shares of common stock. Net proceeds of $11.8 million from this offering were used to acquire, as of February 25, 1981, the Dial-A-Check Division for $9.5 million in cash and $2.3 million in a convertible subordinated note. The balance of $2.3 million was retained by FundsNet for general corporate purposes, including working capital.

- 1984 revenue reached $11.8 million, a 25% increase over 1983 revenue of $9.5 million. Net income decreased 80% from $617,914 in 1983 to $121,776 in 1984. A four-year financial summary follows:

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FUNDSNET, INC.
FOUR-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM / FISCAL YEAR	1984	1983	1982	Pro Forma 1981 (a)
Revenue	$11,833	$ 9,473	$ 7,307	$ 5,010
. Percent increase from previous year	25%	30%	46%	47%
Income (loss) before taxes	$ (112)	$ 1,047	$ 713	$ 481
. Percent increase (decrease) from previous year	(111%)	47%	48%	21%
Net income	$ 122	$ 618	$ 373	$ 287
. Percent increase (decrease) from previous year	(80%)	66%	30%	30%
Earnings Per share	$ 0.04	$ 0.22	$ 0.13	$ 0.10
. Percent increase (decrease) from previous year	(82%)	69%	30%	25%

(a) The pro forma figures have been adjusted to present the operating results of the period as if FundsNet, Inc. had been formed and Dial-A-Check Division acquired on January 1, 1980.

- FundsNet management attributes growth in revenue to increased funds transfers to the consumer market (this portion of the business increased in revenue 35% over 1983) and to improved services and methods of operation provided to the transportation industry.

- Profit margins declined due to price competition within the transportation industry, higher communications costs due to maintaining duplicate systems during part of the year while new procedures were implemented, and to general increases in telecommunications costs. Margins were also affected by higher per-transaction commissions paid to service centers and increased credit card processing fees due to higher volume of transactions.

  . As of March 31, 1984, FundsNet completed the installation of its computer systems, including the expanded Tandem Non-Stop II computer and related software, purchased from Graphic for $1.6

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million plus $800,000 for the operating rights to the communications software systems and procedures previously licensed from Graphic.

- During 1984 FundsNet completed 2,060,000 funds transfers aggregating $526 million compared to 1,410,000 transfers for $416 million in 1983. The average amount per transfer in 1984 was $254 at an average fee of $5.68 per transaction, compared to $295 per average transfer at an average fee of $6.71 in 1983.

- As of December 31, 1984 the company had 185 employees. The company currently has 193 employees segmented as follows:

Marketing/sales	19
Administrative and technical	50
Telephone and computer operations	112
Executive and managerial	12
	193

- Major competitors in the electronic funds transfer service include Western Union and Comdata Network, Inc. Competition for credit cardholder funds transfer services includes Comdata Network and companies such as American Express that issue credit cards or travelers checks. Providers of automatic teller machine services and sellers of money orders may also be considered competitors. Check guarantee competitors include McDonnell Douglas Information Systems Group and Automatic Data Processing.

KEY PRODUCTS AND SERVICES

- One hundred percent of FundsNet's 1984 revenue was derived from processing services. FundsNet provides electronic funds processing and transfer services to the transportation industry and to the consumer public at non-banking leisure establishments such as hotels, casinos, and race tracks. Credit card processing services are provided to banks and retail outlets.

- Forty-two percent of FundsNet's 1984 revenue was derived from the trucking industry under it's Dial-A-Check® , Action Check™ , and National Purchasing System™ services.

  - Dial-A-Check® , developed in 1973 while the company was still a division of Graphic, offers trucking companies a method of transferring funds to their drivers while on their designated routes. The original service was provided to transportation companies with pre-established credit in the following manner:

    . The trucking company maps the drivers route and time schedule by selecting service centers where funds are made available. The trucking company then contacts the FundsNet operation center in Dallas (TX) to request authorization of a funds

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transfer. Upon verification of credit status and authenticity of transaction, the center notifies the service center as to the amount and recipient of the requested draft.

- Once the driver provides the prescribed identification, the Service Center issues the driver a draft for endorsement. The driver may either cash the draft via the issuing agent or at another location.

- The trucking company customers are charged an agreed fee per transaction based on the dollar amount of the draft. Average per transaction fees range from $2.00 to $6.00. The trucking company remits the amount of the Dial-A-Check draft plus the transaction fee by wire transfer or check to FundsNet.

- Action Check T.M. , introduced in 1978, is an enhancement to the basic Dial-A-Check service. With this service the trucking company provides its drivers with pre-authorized coded vouchers, for prescribed dollar amounts, for presentation at any service center. It allows the driver to obtain funds without requiring the trucking company dispatcher to contact FundsNet.

  - Service centers function as independent contractors and their agents are not affiliated with FundsNet.

  - An initiation fee is charged to new truck stops who want to offer the funds transfer service.

- National Purchashing System T.M. , introduced in June 1983, makes use of the Dial-A-Check via FundsNet plastic identification cards that are issued by transportation companies to their drivers. Drivers with activated cards can present the card to the cashier at any truck stop and upon verification from FundsNet by the operator a Dial-A-Check is authorized for payment of vehicle services.

  - Trucking companies can preauthorize purchases by entering their purchase order in the Dial-A-Check computer. When payment is made it will automatically receive approval. Drivers can also be located by a call to FundsNet's computer center.

  - The trucking company receives daily, weekly, and monthly reports summarizing all purchasing activity. The reports serve as management tools for cost controls and tax reports.

  - In 1984 FundsNet expanded the service to allow trucking companies to pre-set daily, weekly, or trip expense limits, as well as to designate grade of fuel, type of service, and amount of accessory purchase allowed. Drivers can make purchases based on these pre-set credit limits.

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- An enhancement to the Dial-A-Check service, introduced in 1984, allows trucking companies to provide their drivers with blank drafts which may be cashed at any truck stop or other locations honoring FundsNet drafts.

  . Through the use of special Dial-A-Check codes the driver can make his own transfer of funds to his wife or anyone in the possession of the drafts.

  . The establishment cashing the check calls the FundsNet toll-free number to verify the authenticity of the coded authorization number supplied by the driver.

- FundsNet also provides a permit service which provides temporary fuel and oversize and overdimensional truck permits required for certain interstate traffic before a truck can use a state's roadway.

• Fifty-six percent of FundsNet 1984 revenue was derived from funds transfer services to the consumer public through its Cash Call[T.M.] services offered at approximately 125 resort hotels, race tracks, casinos, camp grounds, and jai alai frontons across the U.S. as well as in Pueto Rico and the Bahamas.

- The consumer can obtain a cash transfer by utilizing in-place terminals or terminals installed by FundsNet at the establishments service center. The cash obtained is charged to the individual's VISA® or Master Card® account along with a service fee. The service fee ranges from $11.50 for a $100 transfer to $49.00 for a transfer of $1,000.

- Authorization of the amount requested is confirmed by means of computer terminals at the FundsNet Data Center which access the VISA and MasterCard files of the various banks with which it has such agreements.

- An additional service, ResNet[T.M.], allows individuals to transmit deposits using their credit card to guarantee hotel reservations.

- The company's Cash Call[T.M.] II System, introduced in 1983, provides point-of-sale terminals for sending on-line information to the host computer facilitating immediate authorization, credit card reading, and security checking.

- In August of 1983 FundsNet announced an emergency cash transfer system for travelers holding MasterCard or Visa cards issued by Chase Manhattan Bank, N.A. Travelers may obtain funds for services 7 days a week, 24 hours a day at over 4,000 locations.

  . The card holder contacts the FundsNet action-line via a toll-free number and is directed to the nearest center where his credit card will be accepted.

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- The service is being expanded to other credit card suppliers who are charged a monthly maintenance fee and a one-time implementation charge.

- In April 1984 FundsNet announced the establishment of its Merchant Services Division which markets credit card processing services to retailers, mail order houses, hotels and motels, and the entertainment industry.
  - The Merchant Services include the clearing of credit/debit card transactions, check guarantee programs, funds transfer systems, and the development of in-store financial centers.
  - The division has developed a counterfeit credit card and currency detector, Merchant Alert™, which was implemented first quarter of 1985.

INDUSTRY MARKETS

- FundsNet's 1984 revenue was derived from the following industry markets:

Transportation industry	42%
Credit card holders	56
Retail distribution	2
	100%

GEOGRAPHIC MARKETS

- Virtually all of FundsNet's 1984 revenue was derived from the U.S. Less than 1% was derived from funds transfer services provided in casinos in Puerto Rico and the Bahamas.

COMPUTER HARDWARE AND SOFTWARE

- FundsNet's data center located in Dallas (TX) has four Tandem NonStop II computers running under the company's proprietary software.

- FundsNet service centers access the data centers via point-of-sale terminals, Telex, CRTs, facsimile equipment, and direct-dial telephones.

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GABRIELI MEDICAL INFORMATION SYSTEMS, INC.
5 Country View Rd.
Suite 110
Malvern, PA 19355
(215) 296-3838

Michael Nightingale, President
Private Company
Total Employees: 40
Total Revenue, Fiscal Year End
12/31/88: $6,000,000

The Company

Gabrieli Medical Information Systems, Inc. (GMIS), founded in 1980, provides medical code translating and auditing software to the insurance industry.

Key Products and Services

GMIS designs, develops, and markets two software products for translation and auditing of standardized medical codes for the insurance industry.

Autocoder™ takes doctors' diagnoses and procedures reports in a natural language format and translates them into standardized medical codes. Codes supported by the product include ICD-9 and CPT-4.

ClaimCheck™ is a CPT-4 code auditor.

Both products operate on a range of hardware platforms from microcomputers to mainframes.

Both products can be customized by GMIS to suit the users needs.

Pricing for both products range from $3,500 to $325,000 depending on the hardware platform it resides on and the options selected .

Industry Markets

GMIS markets its products to the insurance industry.

Geographic Markets

One hundred percent of GMIS' 1988 revenue was derived from the U.S.

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GDK SYSTEMS, INC.
50 Broadway
New York, NY 10004
(212) 483-0335

Alex Gonter, President
Private Corporation
Total Employees: 40
Total Revenue, Fiscal Year End
6/30/85: $2,600,000

THE COMPANY

- GDK, founded in 1979, provides custom software development professional services and application software products to the banking and finance industry.
- Revenue for fiscal year 1985 reached $2.6 million. GDK management projects fiscal 1986 revenue will be approximately $4 million.
- GDK currently has 40 employees.

KEY PRODUCTS AND SERVICES

- Approximately 70% of fiscal 1985 revenue was derived from application software products (75% from software licenses and 25% from customization, maintenance, and installation services). The remaining 30% was derived from custom software development professional services.
- GDK developed the International Money Management System (IMMS) in conjunction with Marine Midland Bank. IMMS was commercially introduced in 1984.
  - IMMS, composed of independent interactive modules, supports treasury, trading, and operations activities in international banks. IMMS components include Foreign Exchange, Money Market, International Loans, Multi-Currency Accounting, and Customer Information System.
    - Two additional components, Securities Processing and PC Trader Entry (hardware enhancement), will be introduced in the fourth quarter of 1986.
  - IMMS is also available in subsystems. Each subsystem is integrated with all features necessary for the system to operate independently. IMMS can also be licensed by module to run with a client's established system.
    - A list of the systems and modules available and their license fees is shown in the exhibit.

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EXHIBIT

GDK SYSTEMS, INC.
SOFTWARE PRODUCTS

PRODUCT	ANNUAL LICENSE FEE
• Systems	
– Complete System	$876,000
– Foreign Exchange (FX)	$448,000
– Money Market	$408,000
– International Loans	$468,000
– Money Market and Loans	$808,000
– Multi-Currency Accounting	$208,000
– FX Operations	$428,000
• Modules	
– Foreign Exchange (FX)	$300,000
· FX Operations	$275,000
· FX Principal and Interest Swap	$175,000
– Money Market	$250,000
– International Loans	$325,000
– Multi-Currency Accounting	$155,000
– Global Positions and Exposures	$150,000
– Customer Information	$105,000
– Demand Deposit Accounting	$ 50,000
– Credit	$ 15,000
– Federal Reporting (to Federal Reserve Board)	$ 20,000
– Bank of England (British equivalent to FRB)	$ 55,000

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- IMMS, written in COBOL, operates on IBM mainframes (434X and up, and 30XX) running the MVS/VSI operating system. IMMS uses the CICS teleprocessing monitor and either DMS, VSAM, or DL/I.

- The monthly maintenance fee is approximately 1% of the initial license fee for systems and modules.

- Installation fees for systems are approximately 15% of the system license fees. Installation fees for modules are approximately 25% of the system license fee.

- Multiple (three) year licenses are discounted approximately 41% annually for systems and modules.

- Current IMMS users include Marine Midland Bank, Fidelity Bank, National Westminster Bank, Goldman Sachs, and Republic National Bank of New York.

- GDK provides professional services to the banking and brokerage industries. GDK specializes in custom software development primarily on IBM mainframes. GDK can also provide custom software for other hardware including DEC VAX minicomputers and IBM microcomputers.

  - Projects usually range from six months to two years in length.

  - Currently, GDK has 12 professional services clients.

INDUSTRY MARKETS

- GDK derived all fiscal 1985 revenue from the banking and finance industry, primarily commercial banks and brokerage firms.

GEOGRAPHIC MARKETS

- GDK's revenue is derived primarily from two states, New York and Pennsylvania.

  - GDK maintains a branch office in Philadelphia.

COMPUTER HARDWARE

- GDK uses its client's hardware when providing professional services.

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FINANCIAL UPDATE TO HIGHLIGHT DATED JULY ~~1983~~ 1982

GENASYS CORPORATION
One Central Plaza Building
11300 Rockville Pike
Rockville, MD 20852
(301) 770-4600

John P. Puhala, President
Private Corporation
Total Employees: 150
Total Revenue, Fiscal Year
End 6/30/83: $6,451,496

GENASYS CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM / FISCAL YEAR	6/83	6/82	6/81	6/80	6/79
Revenue	$ 6,451	$ 7,759	$ 8,971	$ 9,532	$ 5,349
. Percent increase (decrease) over previous year	(17%)	(14%)	(6%)	78%	70%
Income before taxes	($344)	$ 462	$ 303	$ 211	$ 115
. Percent increase over previous year	(174%)	52%	44%	83%	95%
Net income	($146)	$ 243	$ 167	$ 123	$ 100
. Percent increase (decrease) over previous year	(160%)	46%	36%	23%	2%

- Genasys attributes its revenue loss to federal budget cuts.
- In December of 1983 Genasys acquired RDW, Inc. The combined revenues of Genasys and RDW for the first half of fiscal 1984 were $4.7 million.

SOURCE OF REVENUE

- Genasys derived 98% of its fiscal 1983 revenue from professional services, primarily for custom software development for federal, state, and local governments. The remaining 2% was derived from processing services and software products.

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GENASYS CORPORATION
One Central Plaza Building
11300 Rockville Pike
Rockville, MD 20852
(301) 770-4600

John P. Puhala, President
Private Corporation
Total Employees: 141
Total Revenue, Fiscal Year
End 6/30/82: $7,600,000

THE COMPANY

- Genasys Corporation, founded in December 1968, provides software consulting primarily for federal, state, and local government agencies.

- Total revenue for fiscal 1982 was $7.6 million, a 15% decrease from 1981 revenue of almost $9 million. Management attributes revenue declines in fiscal 1981 and 1982 to cutbacks in government spending. The company anticipates that 1983 revenue will reach $8.5 million. A five-year financial summary follows:

GENASYS CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	6/82	6/81	6/80	6/79	6/78
Revenue	$ 7,600	$ 8,971	$ 9,532	$ 5,349	$ 3,138
. Percent increase (decrease) over previous year	(15%)	(6%)	78%	70%	62%
Income before taxes	$ 440	$ 303	$ 211	$ 115	$ 59
. Percent increase over previous year	45%	44%	83%	95%	228%
Net income	$ 242	$ 167	$ 123	$ 100	$ 98
. Percent increase (decrease) over previous year	45%	36%	23%	2%	(3%)

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- As of July, 1982, the company has 141 employees, divided as follows:

Marketing/sales	5
Product development	14
Customer support	84
Management consulting	26
General and administrative	12
	141

- The company's principal competitors include Computer Data Systems, Inc., Boeing Computer Services, SystemHouse, Electronic Data Systems, Computer Sciences Corporation, and Arthur Andersen & Company.

KEY PRODUCTS AND SERVICES

- One hundred percent of Genasys' revenue is derived from professional services, including custom software development and EDP management consulting.

- Genasys provides development, enhancement, and operation of software systems.

  - The full range of services available include:

    . Requirements analysis.
    . Systems analysis, design, and specification.
    . Programming.
    . Testing and implementation.
    . Documentation.
    . Technical and/or user-oriented training.
    . Systems operation, support, and maintenance.
    . Systems evaluation and audit.
    . Configuration management.

  - Genasys' custom software expertise includes:

    . Designing and installing large-scale financial management, administrative information, and logistics systems for federal agencies including the Departments of Defense and Labor.

    . Developing and implementing applications systems including audit, financial, inventory, marketing, material management, modeling, personnel, and procurement, for clients including the U.S. Departments of Energy and Health and Human Services, various state governments, Arthur Young and Company, Nixdorf, and Fairchild Hiller Corporation.

  - Genasys has experience designing software for a variety of mainframes, including IBM, Control Data, and Univac, and for minicomputers including Basic Four, Data General, and DEC.

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- Genasys provides management information systems consulting to federal, state, and local government agencies, as well as to commercial clients.
  - Services include:
    - Feasibility studies.
    - Definition, conceptual design, and detailed design of management information systems.
    - Program analysis and evaluation.
    - Financial planning and control assistance.
    - Internal agency studies of specific management problems in organization, budget and accounting, project management, and operations research.
  - Recent projects include:
    - The U.S. Army Material Development & Readiness Command, a multi-year effort to design, develop, test, and implement the Operating and Support Cost Management Information System under the direction of the office of the Comptroller of the Army.
    - Analysis and programming support to maintain and enhance the Department of Public Welfare's Medical Assistance Management Information System for the Commonwealth of Pennsylvania.
    - A conceptual design for an Emergency Medical Services Reporting and Management Information System for the Commonwealth of Kentucky.

INDUSTRY MARKETS

Federal government	95%
State, local government, and other	5%
	100%

GEOGRAPHIC MARKETS

- One hundred percent of Genasys' revenue is derived from the United States.

COMPUTER HARDWARE AND SOFTWARE

- One HP 3000 is installed in Rockville for product development.

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Dropped 1/81

Purchased by CAKS (DYATRON)

COMPANY HIGHLIGHT

GENERAL COMPUTER SERVICES INC.
1332 Meridian Street
Huntsville, AL 35801
(205) 539-9492

Thomas W. Keown, Jr., President
Public corporation OTC
Total employees: 75
Total revenues fiscal year end
12/31/77: $2,334,414

THE COMPANY

- General Computer Services Inc. (GCS) was incorporated during 1967 in Alabama and today continues to offer mostly software products and some processing services.

- Revenues for fiscal 1978 are expected to reach about $3 million.

  - This is a 25% increase over the $2.3 million for 1977.
  - Based on the first six months financial performance, fiscal 1978 profits of approximately $100,000 are probable. Fiscal 1977 losses of $292,000 resulted from several large fixed-price programming contracts.
  - A five year financial summary of GCS is shown below:

FIVE YEAR FINANCIAL SUMMARY OF GCS
($ Thousand Except EPS)

Item \ Fiscal Year	1977	1976	1975	1974	1973
Revenues	2,334	2,188	2,148	1,749	1,622
Income before extraordinary items	(292)	9	137	60	106
Net income	(292)	12	238	113	204
Per share income (after dilution)	(.23)	.01	.19	.09	.17

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KEY PRODUCTS AND SERVICES

- Software products accounted for 85% of GCS revenues during 1977, and processing services 15%.

  - Software product revenues are derived as follows:
    - Payroll Personnel System 45%
    - Personnel Trust Information System 40
  - Processing revenues are derived as follows:
    - Batch 12
    - Facilities management 3

    100%

- A licensing agreement with Datapoint produces negligible revenues.

- The Payroll/Personnel System consists of five programs that control and execute approximately 350 separately compiled modules as needed.

  - The more than 70 standard reports include:
    - Payroll summary
    - Monthly labor statistics
    - Labor distribution
    - EEOC reporting
    - Exempt payroll list
    - Upcoming retirement listing
    - Sick leave and vacation accrual report
    - Monthly report on job openings and labor turnover
    - Edit, which includes automatic check reversal, dual audit trails, and selective transaction generation.
  - Optional features include:
    - VSAM interface using record compressing
    - Check reconciliation subsystem
    - Data base interface (IMS, TOTAL, etc.)
    - On-line inquiry
    - On-line inquiry and update
  - This product has over 100 users, including the Arizona Bank, Mead Corp., Chicago Transit Authority, Saga Corp., Western Airlines, Pexiz Chemicals Inc., and several RCS vendors. It is targeted at organizations with 10,000 or more employees and multiple locations.
  - The one-time license fee ranges from $35,000 to $90,000 depending upon options selected.

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- The Personnel Trust Information System provides its approximately 125 users with asset accounting, portfolio analysis, and tax reports information. Over 100 reports are generated, including:

  - Internal cash transfers
  - Future Events--receivables by summary
  - Bond maturities
  - Security conversion dates
  - Demand note interest
  - Account termination data
  - Past due maturities and conversion dates
  - Account security tax detail
  - Customer account inventory--court/charitable accounting
  - Asset distribution
  - Security trial balance
  - Security detail list
  - List of accounts with overdrafts--administrative and investment officers.
  - The one-time license fee to use this product ranges from a base price of $100,000 to about $170,000, depending upon the options selected.

- Other software products available from GCS include:

  - Personal trust accounting system
  - Trust cost control system
  - Employee stock ownership plan accounting
  - Stock transfer system
  - Commercial loan accounting system
  - Performance measurement P/M 80
  - Demand deposit system
  - Customer information file system (customer data base).

- Under development with Glendale Savings and Loan (Glendale, CA) is a mortgage accounting system for thrift institutions. GCS expects the product to be on the market by about mid-1979 and to have a one-time license fee of approximately $100,000.

- Batch processing services consist of payroll, bank trust department accounting, and some data preparation (keypunch) services.

- GCS has one facilities management contract with a bank where it provides personnel on-site for remote job entry and data collection using Sycor peripheral equipment. The contract has been renewed three times for terms of one year each.

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- GCS also has a licensing agreement with Datapoint which generated a negligible portion of 1977 revenues. When bank users of the Personnel Trust Information System decides to use the package on a Datapoint minicomputer, GCS receives a sales commission. To date, Datapoint has sold two minicomputers through its marketing agreement with GCS.

APPLICATIONS Processing services revenues for fiscal 1977 were split about evenly between industry specialty services and general business and utility services.

INDUSTRY MARKETS

- Commercial banks, part of the banking and finance industry, generated 60% of revenues for 1977. The remaining 40% of revenues, generated primarily by the Payroll/Personnel System, are generated by a variety of industries. These include: city government (Chicago Transit Authority), transportation (Western Airlines), process manufacturing (Proctor and Gamble), and restaurants.
- Bank customers include Pacific National Bank, First National Bank of Arizona, Barnett Banks of Florida, and Boston Safe Deposit and Trust Co.
- Thrift institutions are expected to generate a portion of revenues by 1979.

GEOGRAPHIC MARKETS Revenues are generated entirely within the U.S. and for 1977 were distributed approximately as follows:

Pacific states (mainly California)	60%
Middle Atlantic states (New York primarily)	19
East North Central states (mostly Illinois)	18
East South Central region (mainly Alabama)	3
	100%

COMPUTER HARDWARE AND SOFTWARE GCS provides processing services on an IBM 370/138 which runs under OS/VS1.

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INPUT®

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

November 1996

Geac Computer Corporation Limited

Chairman & CEO: William G. Nelson
President: Stephen J. Sadler
11 Allstate Parkway
Markham, Ontario, Canada L3R 9T8
Phone: (905) 475-0525
Fax: (905) 475-3847
Internet: http://www.geac.com

Status:	Public
Employees:	1,300
Revenue:	$205,000,000 ($Cdn.)
Fiscal Year End:	4/30/96

Key Points

- Geac Computer Corporation Limited (Geac) designs, manufactures, and markets UNIX and client/server computer systems and software products.
- In August 1996, Geac announced the appointment of William G. Nelson to the position of Chairman of the Board and CEO effective September 1, 1996. Prior to the appointment, Mr. Nelson was a long-term Geac director in addition to chairman and CEO of Harris Business Group, Inc.
- In July 1996, Stephen Sadler announced his resignation as CEO and president effective January 1997. Mr. Sadler will remain a director, and will act as a consultant focusing on acquisitions.
- In November 1996, Geac finalized the acquisition of Dun & Bradstreet Software Services, Inc., signficantly expanding Geac's software offerings for mainframe and client/server environments.
- Between May and August 1996, Geac also acquired several other companies, including

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Perc Technical Services, Inc., Tranti Systems, Inc., Pro-Mation, Inc., and LIBRA Corporation's Signature Division.

- For the year ending April 30, 1996, Geac made three acquisitions—The Public Safety division of OCS Technology Corporation, Control Transaction Corporation, and Software Shop Systems, Inc.

Company Description

Founded in 1971, Geac began as a developer of software and manufacturer of its own proprietary computer hardware.

Geac currently provides open systems that are available on various hardware platforms. The company's software and services are marketed to various vertical markets, including libraries, financial markets, hotels, construction management, property management, newspapers, cross-industry accounting, restaurants, manufacturing and distribution, and public safety.

Organization and Structure

Geac, headquartered in Markham, Ontario (Canada), has offices located in the U.S., Europe, and Australasia.

Locations in North America include Ontario (Canada), Nashua (NH), Fairfield and Wall (NJ), St. Louis (MO), Tustin (CA), Newtonville (MA), Tampa (FL), and Houston and Irving (TX).

European offices are located in Strombeek-Bever (Belgium), Paris (France), Eindhoven and Baarssen (the Netherlands), LISBOA (Portugal), Bristol (U.K.), St. Leonards and South Melbourne (Australia), and Auckland, Wellington, and Christchurch (New Zealand).

Geac is organized into seven divisions as follows:

- The Financial Systems Division, headquartered in St. Louis (MO), provides financial automation systems such as WINNAR™, an integrated reconciliation and investigation system. The Financial Systems Division accounted for approximately 6% of Geac's total sales in fiscal 1996 and 1995.

- The Manufacturing and Distribution Systems Division provides manufacturing and distribution systems—from ten-user, single-location systems to large international systems. This division accounted for about 8% of the company's fiscal 1996 sales, compared to 9% in fiscal 1995.

- The Vision*Shift* Division, headquartered in Tampa (FL), provides newspaper management and integrated cross-industry accounting and human resources software systems. In fiscal 1996, this division added the Geac Public Safety product family. Vision*Shift* accounted for approximately 8% of Geac's sales revenue in fiscal 1996, compared to 9% the previous year. The operations of DBS' THR business unit and its Windows NT-based TotalHR® human resources applications were added to this division in November 1996.

- The Commercial Systems Division provides systems to the construction and property management markets. This division accounted for approximately 14% of the company's fiscal 1996 sales, up from 9% in fiscal 1995.

- The Hospitality Systems Division, accounting for approximately 17% of Geac's total sales revenue in fiscal 1996, up from 9% in fiscal 1995, is comprised of three business units:

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- The Hotel Computer Systems division, located in Tustin (CA), supplies UNIX-based hotel property management systems to properties of 100 to 1,000+ rooms. The division supplies application software as well as training and installation, and 24-hour, 7-day support for both hardware and software.

- The Geac/CTC division, located in Fairfield (NJ), was formed in fiscal 1996 with the acquisition of Control Transaction Corporation (CTC). Geac/CTC provides POS solutions for table-service restaurants.

- The Fasfax division, located in Nashua (NH), supplies systems to the quick-service restaurant industry.

- The Library Systems Division, located in Newtonville (MA), supplies library automation systems. Library Systems accounted for 24% of Geac's fiscal 1996 revenue, compared to 28% the previous year.

- The Customer Service Division, headquartered in Nashua (NH), provides hardware maintenance, systems configuration and installation, system upgrades, and both local- and wide-area network design to complement the company's software applications, support, and related services. The Customer Service Division accounted for approximately 23% of the company's total sales for fiscal 1996, compared to 30% in fiscal 1995.

As a result of the acquisition of Dun & Bradstreet Software Services in November 1996, Geac is adding the following divisions:

- The Geac host division will develop, market, and support DBS' mainframe-based Expert and Millennium® product lines supporting accounting, human resources, and procurement applications. The division will focus on customers from large global organizations that want to maximize the value of their existing mainframe computers and corresponding processes and/or transaction volumes.

- The Geac client/server division will develop, market, and support DBS' SmartStream® solutions. The division will target customers in middle-tier to top-tier global organizations migrating to distributed client/server financial, human resources, procurement, distribution, manufacturing, and decision-support systems.

Company Strategy

Geac follows a philosophy of "providing the total solution consisting of hardware, software, service, and support to its customers to help them gain a competitive advantage in their markets."

During fiscal 1997, Geac is continuing with this strategy, as well as focusing on strategic acquisitions to complement its current vertical markets and to provide opportunities for entrance into new markets. The company will also focus on internal growth within existing operations.

Financials

Geac's fiscal 1996 revenue reached $205.0 million, a 9% increase over revenue of $187.5 for fiscal 1995. Net income grew to $35.6 million, an increase of 11% over net income of $32.0 million the previous year.

A five-year financial summary is shown on the following page. Unless otherwise stated, all dollars are Canadian.

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Geac Computer Corporation Limited
Five-Year Financial Summary
($ Millions Cdn, except per-share data)

	Fiscal Year				
Item	4/96	4/95	4/94	4/93	4/92
Revenue	$205.0	$187.5	$152.1	$105.1	$85.3
• Percent change from previous year	9%	23%	45%	23%	4%
Income before taxes	$40.6	$37.5	$26.9	$7.2	$12.7
• Percent change from previous year	8%	4%	274%	(43%)	365%
Net income	$35.6	$32.0	$22.9	$4.5	$11.1
• Percent change from previous year	11%	40%	408%	(59%)	301%
Earnings per share	$1.23	$1.11	$0.81	$0.17	$0.50
• Percent change from previous year	11%	37%	376%	(66%)	300%

During fiscal 1996, Geac's research and development expenditures were approximately $13.5 million (7% of revenue), a 30% increase over expenditures of $10.4 million (6% of revenue) in fiscal 1995.

Revenue Analysis by Product/Service

During fiscal 1996, Geac's systems sales revenue grew 12%, to nearly $113.9 million. Service and support revenue, which consists primarily of contracted support of customers' hardware and licensed software, increased 5%, to $87.6 million.

- Service revenue accounted for 43% of sales in fiscal 1996, compared to 45% the prior year, as new product sales increased more rapidly in the growing economy.
- Computer hardware revenue increased to approximately 21% of sales, up from 20% in fiscal 1995, due to increased shipments of Geac-manufactured restaurant POS equipment, which more than offset the historical trend toward lower prices of resold, third-party hardware.
- Higher margin software licenses and consulting revenue accounted for 36% of sales, compared to 35% the previous year.
- Interest income increased to $3.3 million from $2.5 million in fiscal 1995.

A three-year source of revenue summary is shown on the following page.

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Geac Computer Corporation Limited
Three-Year Source of Revenue Summary
($ Millions, Cdn)

	Fiscal Year					
	4/96		4/95		4/94	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Systems sales	$113.9	55%	$101.5	54%	$77.3	51%
Service and support	87.6	43%	83.5	45%	73.0	48%
Other (a)	3.5	2%	2.5	1%	1.8	1%
Total	$205.0	100%	$187.5	100%	152.1	100%

(a) Includes interest income, and in fiscal 1996, interest and investment income.

Interim Results

Geac's revenue for the three months ending July 31, 1996 was $51.5 million, an 8% increase over revenue of $47.6 million during the same period the previous year. Net income for the period was $8.6 million, up slightly from the prior year's net income of $8.5 million.

Market Financials

Geac markets its products and services primarily to end users in various vertical markets, including libraries, financial institutions, hotels, clubs, construction, property management, newspapers, restaurants, and manufacturing and distribution companies, and to public safety system users.

Geographic Markets

Approximately 53% of Geac's fiscal 1996 revenue (54% of sales) was derived from the U.S., and 45% of revenue (46% of sales) came from international sources.

A three-year geographic source of revenue summary follows:

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Geac Computer Corporation Limited
Three-Year Geographic Source of Revenue Summary
($ Millions, Cdn)

	Fiscal Year					
	4/96		4/95		4/94	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$109.0	53%	$87.8	47%	$66.5	44%
Europe	42.5	21%	41.9	22%	37.4	25%
Australasia	32.8	16%	33.3	18%	25.8	17%
Canada	17.2	8%	22.0	12%	20.6	13%
Other (a)	3.9	2%	3.8	2%	3.9	2%
Eliminations	(0.4)	(---)	(1.3)	(1%)	(2.1)	(1%)
Total	$205.0	100%	$187.5	100%	$152.1	100%

(a) Includes interest income and transfers between segments, as well as investment income in fiscal 1996.

Acquisitions

During the past few years Geac has aggressively pursued a strategy of acquisitions to satisfy growth objectives.

In November 1996, Geac completed the acquisition of Dun & Bradstreet Software Services, Inc. (DBS) and its worldwide affiliates for $150 million in cash plus an 18-month term note to Dun & Bradstreet Corporation (D&B) for $41.25 million.

- DBS, a division of D&B based in Atlanta, was formed in 1990 as a result of the merger of Management Science America and McCormack & Dodge. It provides integrated enterprise financial, human resources, procurement, manufacturing, distribution, and decision-support applications for client/server and mainframe environments. Major products include Expert and Millennium mainframe products, SmartStream client/server solutions.
- DBS had annual revenue of approximately $325 million, sales and support operations in 18 countries, and served more than 3,500 customers in 50 countries.
- The bulk of the operations of DBS are being divided between the Geac host division and the Geac SmartSteam client/server division.

During the first four months of fiscal 1997, Geac made four acquisitions:

- In August 1996, Geac acquired Pro-Mation, Inc. of Salt Lake City (UT), a provider of software applications for the construction and property management industries with a base of 1,000 customers and annual revenue of more than $3 million.
- In August 1996, Geac acquired LIBRA Corporation's Signature Division, also a provider of software applications for the construction and property management industries. The Salt Lake City (UT)-based Signature Division had a base of 3,000

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customers and annual revenue of more than $4 million.

- In May 1996, Geac purchased Perc Technical Services, Inc., a Canadian-based provider of on-site technical support to major newspapers, insurance companies, hospitals, automobile manufacturers, and financial institutions. Perc had annual sales of approximately $3 million.

- In May 1996, Geac also acquired Tranti Systems, Inc., a U.S.-based developer and marketer of POS systems to quick-service restaurants, for approximately $1.8 million in cash. Tranti had annual sales of approximately $4 million.

During fiscal 1996, Geac spent a combined total of approximately $10 million on acquisitions.

- In February 1996, the company acquired the Public Safety division of OCS Technology Corporation of Tampa (FL), positioning Geac in a new vertical market. OCS is a supplier of public safety systems, with a base of approximately 150 police, fire, and ambulance customers in the U.S. and Canada.

- In January 1996, Geac purchased Control Transaction Corporation (CTC), a Fairfield (NJ)-based supplier of POS systems for table-service restaurants. CTC's products complement Geac's existing Hotel Systems Division software and are used by many of Geac's current hotel customers. CTC had annual revenue of approximately $7.5 million.

- In August 1995, Geac acquired Software Shop Systems, Inc. of Wall (NJ), a provider of construction management software, to complement its existing Commercial Systems Division.

In fiscal 1995, Geac spent a combined total of approximately $23 million on five acquisitions.

- In March 1995, the company purchased Alternative Management Systems, Inc., a Houston (TX)-based supplier of property management software in the U.S.

- In December 1994, Geac acquired a supplier of library automation solutions in Europe with operations in Belgium (ODIS N.V.), the Netherlands (ODIS B.V.), and France (ODIS SARL), and incorporated the operations into Geac's Library Division.

- In November 1994, the company acquired Fasfax Corporation of Nashua (NH), a supplier of hardware and software systems to the quick-service restaurant industry.

  - Included in the purchase was Fasfax's Professional Series 600™ (PS600) Point of Sale (POS) system and UltraTouch™ software, which can run on either Fasfax's Paradigm™ hardware or on other open system platforms.

  - This acquisition presented opportunities in new vertical markets for Geac.

- In November 1994, Geac also acquired DataTrend Software Technology Inc., a Canadian-based marketer of distribution software based on the Jonas & Erickson software acquired by Geac in 1990.

- In June 1994, Geac acquired Tampa (FL)-based Collier-Jackson, Inc., a supplier of software for the newspaper industry and a provider of integrated office and accounting software solutions.

During fiscal 1994, Geac acquired eight companies, including Hotel Computer Systems Limited, Hotel Systems Pty Limited,

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Convergent Solutions Pty Ltd., Datamark International Limited, Dmark International Pty Limited, ECI Computer, Inc., Claymore Systems Group, and New Tech Hospitality Systems Pty Ltd.

Employees

Geac has approximately 1,300 employees.

Key Products and Services

Geac provides products based on a range of industry standard hardware platforms that support a UNIX or Microsoft Windows-based open system.

Financial Systems Division

WINNAR™ system, introduced in fiscal 1995, is a Windows-based, integrated client/server bank reconciliation and investigations system for cash, securities, and FX confirmations.

IFS2000™ Asset Finance/Leasing System is a UNIX-based leasing and asset finance administration system marketed in the U.K.

Advanced Finance System (AFS™) is an integrated data processing system marketed in the U.S.

- Applications include customer information files, deposits, business accounts, loans, and auto-post general ledger.
- All AFS clients are processed from the data center located in St. Louis (MO).

The Signature verification system for teller and back-office operations is used to capture signatures and create a database.

- This is a PC-based system that can interface to any host-based system, and can function either as a standalone or integrated system.
- Signature is also marketed in the U.S. only.

Manufacturing and Distribution Systems Division

Geac's "value added" manufacturing product lines for manufacturing and distribution companies include:

- i2™
- Factory Manager™
- TIMS™
- Mentat™

The Manufacturing and Distribution Systems Division is developing its next-generation Windows-based, client/server software system, which will include a set of financial, distribution, and manufacturing modules integrated to the Microsoft Office suite of products.

Vision*Shift* Division

The Vision*Shift* Division provides newspaper management and integrated cross-industry accounting software systems.

The Vision*Shift* Accounting™ product line, acquired with the purchase of Collier-Jackson in 1995, is a suite of enterprise-wide client/server applications for mid-range businesses, providing analysis tools and paperless workflow management.

Vision*Shift* Accounting is built exclusively with Microsoft tools and is tightly integrated with Microsoft Office. Modules include:

- Vision*Shift* General Ledger
- Vision*Shift* Accounts Payable
- Vision*Shift* Accounts Receivable
- Vision*Shift* Decision™ for analysis and reporting
- Vision*Shift* Advertising™
- Vision*Shift* Attache™

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- Vision*Shift* Database Marketing™

World Class Series Accounting is a suite of enterprise-wide UNIX, VAX, and HP3000 applications.

- World Class Series General Ledger
- World Class Series Accounts Payable
- World Class Series Accounts Receivable
- World Class Series Fixed Assets
- World Class Series Purchasing
- World Class Series Advertising provides contract management and accounting capabilities for advertising departments.
- World Class Series Circulation provides customer service, accounting, routing, and distribution.

The Geac Public Safety product family, managed under the Vision*Shift* Division, is a suite of host-based application suites designed for police and fire departments and ambulance service companies that are centered around a computer-aided dispatch system.

This division's strategy during fiscal 1997 is to focus on expanding its geographic market for newspaper products and create indirect sales channels for its cross-industry products.

Commercial Systems Division

Constellation™ Series is a suite of client/server products for the construction market with four separate vertical market modules:

- StarBuilder™, released in fiscal 1996, is a client/server Windows-based accounting system for the construction market. Modules include job costing, accounts payable, accounts receivable, and general ledger. Optional modules cover areas such as employee, vendor, customer, and information management, as well as equipment costing, inventory, PowerNotes, and estimating interfaces.
- StarSuite™ is for the commercial property management market.
- StarSite™ for the residential property management market is expected to be released in fiscal 1997.
- HomeStar™ for the HomeBuilder market is also expected to be released in fiscal 1997.

HomeBuilder Management System is designed for the home building industry. The suite of software applications includes multi-company accounting, job costing, project management/scheduling, subcontract/purchase orders, loans processing, lien waivers, buyer management, and estimating.

Construction Manager, obtained in the acquisition of Software Shop in 1995, is a job-costing accounting system for the small to mid-range contractor.

Advanced Construction Estimating (ACE), also from Software Shop, is for the preparation of estimates and bids.

Hospitality Systems Division

Geac/UX™, provided by Geac's Hotel Computer Systems division, is a UNIX-based hotel property management software system for mid-sized to large hotels and resorts that is integrated with the client's hotel reservation system.

Geac/GH is an integrated back-office hotel property management system designed for economy to mid-sized hotels.

The Power Option Series is a suite of property management and accounting software provided by Geac/AMS1.

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- PowerSite is a residential property management system that tracks, reports, and targets potential residents, as well as leasing agent performance. PowerSite contains more than 50 standard management, lease accounting, and audit reports, as well as custom report capabilities.

- PowerSuite is a commercial management system that provides more than 40 standard reports, including tenant profiles and rent rolls. PowerSuite allows up to 99 escalation methods to be maintained for each tenant, as well as the ability to accommodate multiple percentage rent breakpoints for each type of gross sale.

Geac SCO UNIX Property Management System is designed for properties with as few as 100 rooms.

- The system uses PC/Intel-based computers, color touchscreens, and the SCO UNIX operating system.

- The system provides time and attendance tracking, fast bar ordering mode, frequent diner tracking capability, and interfaces to PMS, Club, accounting, inventory, and reporting systems.

CTC SOLUTION SYSTEM™, provided through the Geac/CTC division, is a POS system for restaurant servers and managers.

- The system is designed for total restaurant needs. It both complements and interfaces with Geac's Hotel Property Management System.

- This system is a PC-based color touchscreen system that automates table-side service restaurants from 50 to 1,500 seats, and from standalone operations to restaurant and hotel chains.

- The CTC SOLUTION SYSTEM hardware includes order entry stations that support two printers and two cash drawers simultaneously, printers, and back-office server.

- Software modules include point of sale, time and attendance, holiday menu scheduler, coupon tracking and accounting, frequent diner tracking, team tip allocation, and credit card processing.

The Fasfax family of POS products, acquired with the purchase of Fasfax Corporation in fiscal 1994, are designed for quick-service restaurant chains and their franchisees and independent operators. These systems automate production, control costs, and transfer information between corporate headquarters and the franchised operations.

- Professional Series 600 (PS600), is a POS system that uses modular component and peripheral add-on ports.

- Paradigm™ is Geac's new fourth generation POS hardware system centered around a visual interface and a touchscreen.

- UltraTouch™ software products are for order processing, kitchen production, employee timekeeping, and inventory functions, as well as complete management control and reporting procedures.

Library Systems Division

Geac's Library Systems Division supplies UNIX-based library automation systems for public, academic, and special libraries.

ADVANCE™ release 6.5 is an open system providing standard library functions such as circulation, public access catalog, acquisitions, and serials control. It also allows patrons to check out material on self-charge stations.

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PLUS™ release 2.5 database also provides standard library functions and expands the functionality of circulation, the on-line catalog, acquisitions, and serials.

VUBIS™ is a library automation software system obtained in the acquisition of ODIS.

GEOS2™ is a suite of GUI-based client/server products, currently comprised of three products:

- GeoWeb™ is an Internet gateway product that enables users to search a library catalog directly from a World Wide Web browser on the Internet.
- GeoCat™ is an integrated cataloging and holdings maintenance client. It retrieves and stores bibliographic information from ADVANCE, PLUS, or any z39.50-compliant database.
- GeoPac™ is a Windows-based multimedia public access catalog client for searching local and remote databases. GeoPac is also the search engine for GeoCat.

Customer Service Division

The Customer Service Division provides hardware maintenance, systems configuration and installation, system upgrades, LAN design and installation, and data communication services. It also provides both on-site and return-to-depot service for Geac customers and third-party organizations.

The field service organization of Fasfax Corporation, acquired in 1994, is now incorporated into the Customer Service Division.

Marketing and Sales

The Vision*Shift* Division products are currently marketed through a direct sales force in the U.S., and have distribution channels in the U.K., France, the Middle East, Mexico, and South America. In fiscal 1997, Geac expects to create indirect sales channels in the U.S. for Vision*Shift*'s cross-industry products.

The Commercial Systems Division markets its products through an expanding base of value-added resellers (VARs).

Alliances

Geac is a member of the Microsoft Solution Provider program at the partner level, and is a Novell Platinum Reseller, a Citrix Premier Solution partner, and a Netscape affiliate.

The company also has strong product development relationships with UniData, Digital Equipment Corporation, Hewlett-Packard Corporation, IBM, and a variety of vertical software solution providers.

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GE COMPUTER SERVICE, INC.

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6875 Jimmy Carter Blvd.
P.O. Box 105625
Atlanta, GA 30342
Phone: (800) 937-9550
Fax: (404) 256-6389

General Manager:	Jim Mitchell
Parent:	General Electric Co.
Status:	Subsidiary
Total Employees:	2,000*
Total Revenue:	$175,000,000*
Fiscal Year End:	12/31/91

* INPUT estimate

Key Points

- GE Computer Service (GECS) is one of the nation's leading independent service providers for multivendor computer maintenance; rental/leasing of PCs, peripherals, and electronic test/measurement equipment; and for repair/calibration of test and measurement equipment.
- GE Computer Service operates through a network of over 250 service locations, 22 depot locations, and 10 rental inventory locations in all 50 states and Puerto Rico. More than 70 dispatchers and 1,200 technicians supply around-the-clock service, seven days per week.
- GE Computer Service offers repair and maintenance services on satellite earth station and terminal equipment.
- In 1992, GE Computer Service launched the Network Resources program for companies that want help installing and managing their networks.

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Company Description

GE Computer Service is one of the largest full-service computer maintenance and support providers in the U.S. As a component of GE Financial Services, GECS delivers a wide array of computer services to customers across North America.

- GECS provides comprehensive preventive and remedial maintenance service on a broad range of computer and communication products and peripherals.
- GECS also offers a full menu of service options focused on networking, from network consulting, design, and installation to system certification and user training.

Company History

GE Computer Service has over 20 years of experience in the computer maintenance and support area. The company became part of GE Financial Services in 1992.

Financials

INPUT estimates that GECS' 1991 revenue was approximately $175.0 million, a 20% increase over 1990 estimated revenue of $145.0 million.

Alliances

GE Computer Service announced in November 1991 that it would be an authorized independent maintainer of Compaq PCs and PC systems in the U.S.

GE Computer Service supports Diamond Technologies' computers and Austin Computers' systems. Austin Computers has been a recipient of several Editor's Choice awards for desktop PCs.

GECS also provides on-site support for NEC Technologies and Leading Edge computers.

Competitors

GECS' main competitors in the service and support area are Bell Atlantic Business Systems Service, Intelogic Trace, ComputerLand, and Novadyne.

Key Products and Services

GECS offers single-source multivendor maintenance and support services through over 1,000 technicians at more than 250 locations nationwide. Technicians are trained on the specifics of customers' equipment that is not already part of their standard repertoire.

The following services are offered:

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- On-site remedial maintenance, preventive maintenance, installations, removals, relocations, engineering changes and upgrades

- Depot mail-in and carry-in service, refurbishment, reconditioning, upgrades, configuration and staging

- Technical Assistance Center, hardware/software help desk, remote diagnostic center, training, warehouse and logistics management support services

- The GE Network Resources Program provides the following services: LAN system design, site planning, cabling and installation, operating system support services, and three levels of network component coverage.

The service components of the nationwide service network include:

- A full-time, toll-free Customer Support Center is staffed 24 hours per day, 7 days a week to field calls and notify technicians of a service request.

- The Technical Assistance Center provides on-line troubleshooting assistance to customers. If a service call by a GE technician is required to correct any hardware problems, the diagnosis is communicated to the technician to serve as a starting point for the repair or correction of the problem.

- Technical backup for the service technicians is available by phone from the Technical Support Group of skilled engineers, with a library of service documentation.

- Nationwide inventory management is provided by the National Distribution Center, the heart of a three-tiered system that makes parts available through regional satellite centers right down to the technician's truck. Parts are available either from consignment or GECS stock.

GECS offers associated computer services through other arms of the company.

- GE Electronics offers repair, calibration, and maintenance services for leading brands of electronic test and measurement equipment and industrial control systems. All equipment is tested and calibrated to manufacturer specifications before shipment ,and National Bureau of Standards certifications are available.

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- GE Rents rents and leases top-quality PCs, portables, laptops, peripherals, and leading industrial and electronic test and measurement equipment. The company also sells brand name computer supplies and used equipment. Rental terms offered vary from one week to five years and maintenance is included. Quick-Rental[R] Centers are located in Atlanta, Boston, Chicago, Dallas, Los Angeles, Orlando, Philadelphia, San Francisco, and Seattle.

Geographic Markets

INPUT estimates that over 90% of GECS' 1991 revenue was derived the U.S. and 10% from international companies.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

September 1995

GE Information Services, Inc.

President
& CEO: **Hellene S. Runtagh**
401 North Washington Street
Rockville, MD 20850-1785
Phone: **(301) 340-4000**
Fax: **(301) 340-4488**

Status:	Division
Parent:	General Electric Co.
Employees:	2,500
Revenue:	$ 625,000,000*
Fiscal Year Ending:	12/31/94

**INPUT estimate*

Key Points

- GE Information Services, Inc. (GEIS)—a global leader in electronic commerce services—provides the Commerce*Express portfolio—electronic messaging, electronic data interchange (EDI) and information management services—along with consulting, systems integration and implementation services to link more than 30,000 businesses around the world.
- In September 1994, GEIS formed a new Healthcare Information Management business unit to provide information services to the health care industry.
- In May 1994, Ameritech Corporation, a leading telecommunications company, completed its $472 million investment GEIS, that may eventually result in a 30% equity position for Ameritech.

Company Description

GEIS is one of 12 key business units of General Electric Co.

GEIS provides transaction and utility processing; inquiry/response, EDI and value-added network services; systems integration; and software development and network management professional services to more than 30,000 corporations and associations worldwide.

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- GEIS was established in 1965 when GE commercialized the concept of timesharing developed by Dartmouth College.

- GEIS was formed as General Electric Information Services Company(GEISCO) to consolidate General Electric Co.'s (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S.

- The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1972, when GE purchased Honeywell's interest for approximately $70 million.

- On January 1, 1984, GEISCO once again became an internal component of GE and its legal name became GE Information Services.

- GE Consulting Services, formerly part of GEIS, was acquired by Keane Inc. in January 1993.

- GE Computer Services, based in Atlanta, was formerly part of GEIS and now operates as a separate unit under GE.

Structure and Operations

GEIS has U.S. regional offices in New York, Atlanta, Chicago and San Francisco.

International offices are located in Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Egypt, Finland, France, Germany, Hong Kong, Ireland, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, the Philippines, Portugal, Saudi Arabia, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand and the U.K.

GEIS has supercenters in Cleveland (OH), Rockville (MD) and Amsterdam (The Netherlands). In addition, the company has 22 network control centers.

GEIS is organized into three triads supporting the U.S., Europe and the Asia/Pacific.

Company Strategy

GEIS, along with other GE divisions, shares the GE mandate of being the dominant player in the markets it chooses to compete in.

GEIS considers that corporate customers advance upward to higher levels of information infrastructure. Beginning with establishing basic data transmission capabilities (through telephone company carriers) they move to network services, processing services, enablers, applications and finally, full systems integration.

The company is well positioned in the EDI network services market with over 30,000 EDI trading partners, growing 22% annually.

GEIS has aligned its products and service offerings to match this development process. GEIS' basic services start with network and processing services, then advance to managed network services, EDI (as an enabler), business communications (E-mail, facsimile, EDI, databases etc.) to fully integrated business productivity solutions.

Financials

INPUT estimates GEIS' total 1994 revenue was approximately $625 million, compared to an estimated $600 million in 1993.

Revenue is derived from network/processing services, professional services, systems integration and software products.

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Market Financials

GEIS' revenue is derived approximately as follows:

Banking	40%
Manufacturing	32%
Telecommunications	10%
Trade and transportation	10%
Retail	5%
Other	3%
	100%

GEIS has a client base of over 30,000 corporations and associations worldwide. The company controls approximately 21% of the electronic-mail market and is growing approximately 15% annually.

Revenue Analysis by Product Line:

INPUT estimates that approximately 80% of GEIS' 1994 revenue was derived from network and processing services and the remaining 20% from professional services, systems integration and software products.

Geographic Markets

Approximately 60% of GEIS' revenue is derived from the U.S. and the remaining 40% from its Europe and Asia/Pacific accounts.

Employees

The company currently has approximately 2,500 employees. Of these, nearly 1,000 (40%) are based outside the U.S.

Acquisitions

In January 1994, GEIS acquired ICL's remaining interest in International Network Services, Ltd. (INS) in an effort to grow GEIS and INS in the electronic commerce services business worldwide.

Key Products and Services

GEIS' electronic commerce services link businesses with their suppliers, distributors, manufacturers and customers to streamline business transactions and improve the flow of information.

GEIS' Business Productivity Solutions offerings include the following areas:

- Purchasing/Supplier Productivity
- Marketing and Sales Productivity
- Logistics Management

GEIS offers its clients multiple delivery systems for its processing/network services as follows:

- The MARK III® Service consists of the following major elements:
  - Foreground Service is the primary offering on the MARK III System, consisting of interactive remote processing on Bull/NEC computers. GEIS offers libraries consisting of over 2,000 software products.
  - Products are developed by GEIS or licensed from major software vendors. These third-party packages are fully supported by GEIS.
- The MARK 3000 Service is an IBM-compatible companion service to the Bull/NEC offerings. Remote batch and interactive processing on large-scale IBM computers is available. Usage is split between general business applications and engineering, simulation and statistical analysis applications.
- GEIS provides a UNIX-based processing environment consisting of high-availability processor cluster telecommunications facilities and high-capacity disk storage. The platform is targeted to clients requiring an open systems environment, processing

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scalability, client/server architecture and relational database management.

- The GEIS network is the company's worldwide teleprocessing network based on a proprietary packet-switching protocol. It permits multisite organizations to achieve data transmission to dispersed terminals and host computers around the world with more than 750 access points in the U.S. and in-country direct access in 35 countries.

  - The GEIS network supports asynchronous, IBM-compatible synchronous (including 3270 BSC, 3270 SNA/SDLC, 2780/3780 BSC, 3770 SNA) and X.25 protocols.

  - The High Performance Network (HPN) is part of GEIS' overall initiative to implement new advanced networking and applications processing platforms for delivery of its global electronic commerce services. Asynchronous connectivity via the HPN provides V.32 standard access with 9600 bps connect speed plus support for MNP-5 and V.42 bis, and has a potential maximum throughput rate of 38.4 kbps. X.25 connectivity supports dedicated leased line access at speeds of up to 64 kbps and higher, if required, for single or multiple virtual circuits.

  - In addition to supporting interconnections among SNA networks, it offers a variety of error-correcting protocols, such as MNP and XMODEM, and it provides 3270 emulation via NET*CONNECT 3270 and Simware's SIM 3278, SIMPC and MAC3270.

GEIS' Business Productivity Solutions consists of the following products and services:

- ACCOUNTS PAYABLE COEP is a network-based integrated application for managing the initiation of payments and remittance information to suppliers and other payees.

- ACCOUNTS RECEIVABLE COEP is a network-based integrated application for managing payments and remittance information customers and other payers.

- ACTION CONSULTING is a three-step consulting methodology that is designed to identify, focus and act upon key business processes through effective integration of electronic commerce-based services.

- ADOBE ACROBAT software allows users to store digital documents in a general file format, which is known as portable document format (PDF). GEIS offers a range of Adobe Acrobat software to be used in conjunction with Business Network and Information Manager on UNIX to take full advantage of Acrobat's document management capabilities.

- ASN Plus is a supply chain productivity service that manages and automates the shipping process between suppliers and purchasers.

- Business Network is an information management system that provides an integrated presentation of software products that include E-mail for communications and Information Management for bulletin board and database management needs.

- Business Network Administrator is an icon-driven graphical user interface that enables administrators and system operators to manage and administer their use of the Business Network Mail and Information Management (IM) services, both in the MARK III and UNIX environments.

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- Business Network EDI offers a Windows-based workstation that provides access to EDI, E-mail, customized information boards and news and information services.
- Business Network for Microsoft Mail is a variation of Business Network that substitutes Microsoft Mail for Windows for the Business Network for Windows mail capability.
- BusinessConnect Service is a set of products that integrate disparate and remote electronic messaging systems within an organization and with strategic business partners.
- EDI Application Integrator for UNIX is a mapper and translator that allows different application formats to blend together to produce compatible data formats.
- EDI*EXPRESS Service is an electronic data interchange (EDI) mailbox service that enables computer-to-computer exchange of business documents between companies, such as product catalogs, purchase orders, shipping notices and payment instructions.
- EDI*TRANSIT DOS is an EDI translation and management product for PC-DOS platform systems and can run as a stand-alone application or used as a front-end to business application running on a midrange or mainframe computer system.
- EDISWITCH is a UNIX-based EDI service that accepts EDI data formatted to the EDIFACT, ANSI X12 and UNGTDI standards, as well as E-mail and unstructured data.
- FREIGHT PAYMENT SERVICE is a freight logistics solution to receive, audit and pay transportation freight bills electronically.
- Global Document Access is a Lotus Notes interconnection service that allows Notes document information to be listed on Business Network Information Manager.
- Information Manager on UNIX provides on-line access, storage and full text search and retrieval of mission-critical information on demand.
- MARK400 Messaging Service is a Telecommunications Standardization Sector (TSS) recommendation designed to facilitate international message and information exchange between subscribers of computer based store-and-forward services and office information systems in association with public and private data networks.
- NET*CONNECT provides an asynchronous/SNA link for micro-mainframe communications.
- QUIK-COMM Messaging Service is a global electronic messaging service with access to Telex, Fax, Internet mail and MARK400 Messaging Service, offering group distribution lists, forwarding, delegation, file exchange and other features.
- QuikInfo Service is an interactive, menu-driven service providing access to third-party, industry-specific news and database services, such as Dow Jones News/Retrieval and DIALOG.
- QuikNews® Service is an electronic newsletter and news clipping service.
- Risk Exposure Management (RXM) System is a customized software package designed to assist international banks to manage and control their risk exposures in money markets, in credit granting and other operations, 24 hours a day, in trading centers around the world.

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- UFTU Service is a network based file distribution and management service that retrieves, stores, manages and distributes large volumes of business data for geographically dispersed locations.

- UPC*EXPRESS II Catalog Service is an electronic clearinghouse for Universal Product Codes (UPC) codes and their descriptive product information.

Managed Network Services (MNS)

MNS is a specialized teleprocessing service that provides client organizations with custom-tailored network and session management of their international information and communications systems. It provides the following:

- GEIS consultants, with expertise in applications, networking and client support, prepare tailored proposals designed for specific client requirements

- Network and session management using MNS Session Manager, a network management teleprocessing application

- Support in managing the global integration of information by coordinating with third-party vendors such as Postal Telephone and Telegraph (PTT) authorities and by offering the client a single worldwide contract

- Worldwide support 24 hours a day, seven days a week, once service is in place

On-line Consumer Information Service

GEnie™ (GE Network for Information Exchange) is an electronic consumer information service for microcomputer users.

- GEnie permits access to a variety of services, including news and information, financial, travel, shopping, computer games and references, electronic mail and real-time conferences.

- GEnie has over 200,000 individual subscribers.

Other

Professional services provided by GEIS include systems development, consulting, training and documentation services.

GEIS' network provides clients with local dial-up services in 750 cities in 35 countries worldwide and is available 24 hours a day. Coverage is extended to an additional 75 countries via public data networks and international record carriers.

The company offers worldwide client support through its staff of over 200 trained specialists that provide skilled, local, in-country support. GEIS Global Support Services group provides support in countries where there is no local presence.

Marketing and Sales

GEIS products and services are offered through approximately 50 U.S. offices and offices in 35 countries, with global support and access provided by distributors, affiliates, or private data networks in 60 additional countries.

In 1994, GEIS increased its worldwide network presence.

- In October, Japan Research Institute, Limited, a large information services company in Japan became a GEIS distributor in Japan.

- In August, EDI Malaysia, a Time Engineering subsidiary became a GEIS distributor in Malaysia.

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- In May, Guangdong Computers, an information technology company, became a GEIS user support and sales channel for the Guangdong region.

- In April, Great Wall Computer Group, a large PC manufacturer, providing software development and systems integration in China, became GEIS' sales channel in Beijing.

- In January, GEIS' INS Division expanded its global partnerships with eight new international business partners (IBPs).

  - These IBPs will run a local electronic commerce service using GEIS' EDISwitch and also distribute electronic commerce enabling software from the Commerce*Express Services portfolio.

  - The new IBPs—Norway, Japan, Argentina, Columbia, Thailand, Indonesia and Italy—join Chile, Malaysia, India, Portugal, South Africa, Russia, Northern Ireland and Eirtrade.

Clients

Some of GEIS' major clients include—Dayton Hudson Corporation, Reebok, Nike, Cobra, PSA Peugeot Citroen, Danskin Inc., Associated Credit Bureaus (ACB), Coles Myer Ltd., Colgate-Palmolive, Hyundai, World Trade Centers Association (WTCA), Microsoft, Motorola, Toys R Us, JCPenney, Woolworths Ltd. and Benetton.

Alliances

Alliances formed by GEIS during the past two years include:

- In January 1995, GEIS announced that the company was working with Distributed Systems Solutions International, Inc. (DSSI) to develop Global Document Access, a gateway between GEIS' Business Network service and Lotus Notes.

- In November 1994, GEIS teamed up with ARINC—a communications and information services provider to the air transportation industry—to provide an interconnection between their network services. The ARINC/GEIS network interconnection provides the worldwide freight-forwarding community and other airline support companies direct communications access to more than 120 airlines connected to ARINC's data network services.

- In November 1994, GEIS, along with four other GE businesses, joined CommerceNet, a consortium of technology companies that are involved in developing ways to conduct electronic commerce over the Internet. GEIS will use CommerceNet to market its products and services over the Internet.

- In October 1994, INS Division formed major partnerships with Multisoft and Pegasus who market packaged accounting systems, to provide an easier route for small and medium-sized businesses to adopt electronic commerce.

- In August 1994, GEIS announced that the company would jointly develop the HTFN TrackNet system with Hi-Tech Forwarder Network, Inc. (HTFN), a global business coalition of regional transportation and logistics companies. The system is a centralized order and shipment tracking database that will provide a multimodal view of the movement and cost of worldwide inventories.

- In May 1994, Ameritech Corporation, a leading telecommunications company, invested $472 million in GEIS, in the form of a four-year convertible note. When the U.S. law permits, this investment will

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convert to a 30% equity position in GEIS, creating a new unit that will create and market electronic commerce and communications products.

Competition

GEIS' major competitors include—AT&T Istel, Advantis, Infonet, MCI, Sprint and Reuters.

In the EDI and electronic mail area, GEIS also competes with Sterling Software (Ordernet), MCI and AT&T EasyLink.

INPUT Assessment

GEIS is in a unique market position as an Electronic Commerce provider, after almost ten years of being considered as a Value Added Network (VAN) Provider.

GEIS is one of today's most comprehensive electronic commerce business solution providers. In addition to EDI software and network services, GEIS offers electronic mail, commercial databases, processing services, systems integration services and enhanced facsimile services that are combined in various ways to provide complete business communication solutions to companies.

GEIS' major strength is its suite of applications. It has made its position more secure by allying with Ameritech—a safe position to be in as the VAN market seems to slip away and the excitement surrounding EDI creates an unsettling market for traditional EDI players.

Parent Company:

General Electric Company (GE)
3135 Easton Turnpike
Fairfield, CT 06431
Phone: (203) 373-2211
Revenue: $60,109,000,000 (12/94)

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

July 1994

GE Information Services, Inc.

President
& CEO: Hellene S. Runtagh
401 North Washington Street
Rockville, MD 20850-1785
Phone: (301) 340-4000
Fax: (301) 340-4488

Status:	Division
Parent:	General Electric Co.
Employees:	2,500
Revenue:	$ 600,000,000*
Fiscal Year Ending:	12/31/93

*INPUT estimate

Key Points

- GE Information Services, Inc. (GEIS)—a global leader in electronic commerce services—provides the Commerce*Express portfolio—electronic messaging, electronic data interchange (EDI) and information management services—along with consulting, systems integration and implementation services to link more than 25,000 businesses around the world.
- In March 1994, GEIS introduced a new EDI solution for sales forecasting and inventory replenishment, that combines its electronic commerce services with software solutions from Lucas-Bear Forecasting Systems.
- During 1993, GEIS signed an agreement under which Ameritech Corporation, a leading telecommunications company, will invest $472 million in the company, that will eventually result in a 30% equity position for Ameritech.
- In 1993, the company acquired International Network Services, Ltd., a European supplier of EDI services and software.
- In 1993, GEIS announced its agreement with TRANSAXION of Chile to market and support GEIS' electronic commerce services in key South American countries.

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Company Description

GE Information Services is one of 12 key business units of General Electric Co.

GEIS provides transaction and utility processing; inquiry/response, EDI and value-added network services; systems integration; and software development and network management professional services to more than 25,000 corporations and associations worldwide.

- GEIS was established in 1965 when GE commercialized the concept of timesharing developed by Dartmouth College.
- GEIS was formed as General Electric Information Services Company(GEISCO) to consolidate General Electronic Co.'s (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S.
- The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1972, when GE purchased Honeywell's interest for approximately $70 million.
- On January 1, 1984, GEISCO once again became an internal component of GE and its legal name became GE Information Services.
- GE Consulting Services, formerly part of GEIS, was acquired by Keane Inc. in January 1993.
- GE Computer Services, based in Atlanta, was formerly part of GEIS and now operates as a separate unit under GE.

Structure and Operations

GEIS has U.S. regional offices in New York, Atlanta, Chicago and San Francisco.

International offices are located in Australia, Austria, Belgium, Canada, Denmark, Egypt, France, Germany, Hong Kong, Ireland, Italy, the Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland and the U.K.

GEIS has supercenters in Cleveland (OH), Rockville (MD) and Amsterdam (the Netherlands). In addition, the company has 22 network control centers.

GEIS is organized into three triads supporting the U.S., Europe and the Asia/Pacific.

Company Strategy

GEIS, along with other GE divisions, shares the GE mandate of being the dominant player in the markets it chooses to compete in.

GEIS considers that corporate customers advance upward to higher levels of information infrastructure. Beginning with establishing basic data transmission capabilities (through telephone company carriers) they move to network services, processing services, enablers, applications and finally, full systems integration.

GEIS has aligned its products and service offerings to match this development process. GEIS' basic services start with network and processing services, then advance to managed network services, EDI (as an enabler), business communications (E-mail, facsimile, EDI, databases etc.) to fully integrated industry applications.

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Financials

INPUT estimates GEIS' total 1993 revenue was $600 million.

Revenue is derived from network/processing services, professional services, systems integration and software products.

Market Financials

GEIS' revenue is derived approximately as follows:

Banking	40%
Manufacturing	32%
Telecommunications	10%
Trade and Transportation	10%
Retail	5%
Other	3%
	100%

GEIS has a client base of over 25,000 corporations and associations worldwide. These clients represent over 400,000 mailboxes. The company controls approximately 21% of the E-mail market and is growing approximately 15% annually.

Revenue Analysis by Product Line:

INPUT estimates that approximately 80% of GEIS' 1993 revenue was derived from network and processing services and the remaining 20% from professional services, systems integration and software products.

Geographic Markets

Approximately 60% of GEIS' revenue is derived from the U.S. and the remaining 40% from its Europe and Asia/Pacific accounts.

Acquisitions/ Divestitures

In December 1993, GEIS acquired entire interest in International Network Services, Ltd. (INS), a European supplier of electronic data interchange (EDI) software and services. The acquisition was accounted for as a purchase.

- Previously GEIS and ICL each held a 50% interest in INS, which was established in 1987.

- The operations of INS have been merged into GEIS.

Employees

As of December 31, GEIS had approximately 2,500 employees. The company currently has approximately 2,500 employees.

Key Products and Services

GEIS offers the Commerce*Express portfolio, including electronic messaging, electronic data interchange (EDI) and information management for the conduct of electronic commerce.

GEIS offers its clients multiple delivery systems for its processing/network services as follows:

- The MARK III® Service consists of the following major elements:

  - Foreground Service is the primary offering on the MARK III System, consisting of interactive remote processing on Bull/NEC computers. GEIS offers libraries consisting of over 2,000 software products.

  - Products are developed by GEIS or licensed from major software vendors. These third-party packages are fully supported by GEIS.

- The MARK 3000 Service is an IBM-compatible companion service to the Bull/NEC offerings. Remote batch and interactive processing on large-scale IBM computers is available. Usage is split between general business applications and engineering, simulation and statistical analysis applications.

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- GEIS provides a UNIX-based processing environment consisting of high-availability processor cluster telecommunications facilities and high-capacity disk storage. The platform is targeted to clients requiring an open systems environment, processing scalability, client/server architecture and relational database management.

- The GEIS network is the company's worldwide teleprocessing network based on a proprietary packet-switching protocol. It permits multisite organizations to achieve data transmission to dispersed terminals and host computers around the world with more than 750 access points in the U.S. and in-country direct access in 35 countries.

  - The GEIS network supports asynchronous, IBM-compatible synchronous (including 3270 BSC, 3270 SNA/SDLC, 2780/3780 BSC, 3770 SNA) and X.25 protocols.

  - The High Performance Network (HPN) is part of GEIS' overall initiative to implement new advanced networking and applications processing platforms for delivery of its global electronic commerce services. Asynchronous connectivity via the HPN provides V.32 standard access with 9600 bps connect speed plus support for MNP-5 and V.42bis, and has a potential maximum throughput rate of 38.4 kbps. X.25 connectivity supports dedicated leased line access at speeds of up to 64 kbps and higher, if required, for single or multiple virtual circuits.

  - In addition to supporting interconnections among SNA networks, it offers a variety of error-correcting protocols, such as MNP and XMODEM, and it provides 3270 emulation via NET*CONNECT 3270 and Simware's SIM 3278, SIMPC and MAC3270.

GEIS services are categorized into the following application areas:

- Electronic Commerce Services, including electronic messaging, EDI and information management

- Industry Applications, including Banking and Financial Services, Retail, Trade and Transportation, Healthcare, Petroleum and Computing

- Managed Network Services

- On-line Consumer Information Services (GEnie)

Industry Applications

Banking and Financial Services

GE Financial Information Services, formed in 1989, supports international network applications for banking and financial institutions. GEIS offers the following products/services which are generally used as part of a distributed processing service:

- ORDEX is an electronic order routing service developed to help streamline trading services in the futures and options industry. It links brokers and investors to help speed the orderflow cycle with an exchange's automated trading system.

- The Risk Exposure Management (RXM) System is a customized software package designed to assist international banks to manage and control their risk exposures in money markets, in credit granting and other operations, 24 hours a day, in trading centers around the world.

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- LEX2000 financial consolidation and reporting software is designed to address a need to consolidate financial information in multidivisional companies, regardless of size. LEX2000 reduces the time and effort required to collect, consolidate and report financial and measurements data.

Retail Services

In the retail area, GEIS supports EDI, electronic payments, UPC catalogs/bar code management and communications between business partners.

- The RETAIL*TALK Service combines electronic mail, specialized databases, industry directories, electronic news services and bulletin boards via a PC-based system to complement EDI transactions between retailers and their suppliers.
- The UPC*EXPRESS II Catalog is a service that manages and distributes Universal Product Code (UPC) numbers and their description information for vendors and their retailers. This database is integrated with the EDI*EXPRESS System to electronically maintain and receive UPC catalog updates.
- The Bar Code Director®, released in 1993, is an inventory control/order entry applications software that generates UPC data for apparel items at size/color level and transmits data via GEIS' EDI*EXPRESS Service for storage in vendor catalogs on the UPC*EXPRESS II Catalog Service.
- In March 1994, GEIS announced the commercial availability of COEP*Register, a complete electronic invoice receipt and payment generation workstation. It can be used with any trading partner and supports multiple electronic payment options.

Trade and Transportation

In the area of trade and transportation, GEIS supports EDI, equipment management, consignment tracking and motor carrier sales and marketing.

- CARGO*LINK Services is a global network-based service targeted to the trade and transport industries that incorporates EDI for shipment data exchange, database access for transport business information, consignment tracking and electronic mail.
- ACES is an EDI community system for the ports of New York and New Jersey. GEIS provides the software and network services for this service.
- Equipment Management System is a retail/wholesale/distribution applications software for container shipping and leasing operations. It controls and manages equipment and operating costs.
- Shipment Tracking System is a wholesale/retail/distribution applications software that maintains up-to-date status for each shipment. It is interfaced to the EDI*EXPRESS to provide processing transmission of commercial invoices, shipping notices, manifests, shipping instructions and import/export documents.
- MANOR is a central reservation system for the international hotel industry. It allows hotel chains to manage worldwide room inventory and connect to airline Computer Reservation Systems.

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Petroleum

In the petroleum industry, GEIS provides network services in support of various EDI applications.

- PETRODEX is a family of EDI applications that electronically exchanges accounting information among U.S. and Canadian petroleum companies. GEIS is the sole network service provider of PETRODEX.

Business Communications Products and Services

GEIS offers a range of electronic messaging and related business communications services that link a customer's geographically dispersed operations with GEIS' worldwide teleprocessing network.

The BusinessTalk™ System 2000 is a communications and information management mail service designed to process, distribute and retrieve information for members of a geographically dispersed business community through an Apple Macintosh or IBM PC-compatible computer. BusinessTalk System 2000 combines the functions of electronic messaging with access to public and private keyword-searchable information databases and electronic bulletin boards.

BusinessTalk System 2000 users have access to the following electronic messaging delivery services:

- Fax delivery of messages
- Telex delivery of messages
- Hardcopy delivery anywhere within the continental U.S. or Canada via the QUIK-GRAM™ Service
- X400 delivery, with users exchanging messages with users on the major public electronic mail services. GEIS has X400 service interconnection agreements with major organizations in most European countries, including AT&T, AT&T EasyLink, France Transpac, Swiss PTT, Radio Austria, Deutsche Bundespost Telecom, Swedish Telecom International, Helsinki Telephone Company, Finnish PTT, BT North America (MCI), BT Plc, PTT Sprint International Data Services and IBM Information Network. Agreements with other vendors are under negotiation.
- The BusinessConnect™ System allows BusinessTalk System 2000 users to exchange messages with users on dissimilar host, mini, or LAN-based messaging systems, including cc:mail; CompletE-Mail; DaVinci EMAIL; DEC ALL-In-1, VMS Mail and Message Router; IBM AS/400 Office and System/3X, DISOSS and PROFS; MHS; Network Courier; Wang OFFICE and 3COM 3+Mail.

The DISOSS Connector is an E-mail communications software that connects the user's in-house IBM DISOSS E-mail system into GEIS' BusinessTalk System 2000 global electronic mailbox service.

The IBM AS/400 and System/3X Connector is allows users on IBM S/36, 38 and AS/400 computers to send messages to and receive messages from GEIS' global electronic messaging system.

The PROFS Connector provides connections between GEIS' BusinessTalk System 2000 and the IBM PROFS office system.

The QuikNews™ Service is an electronic news clipping service that delivers selected newswire

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articles to a BusinessTalk System 2000 user's electronic mailbox.

- Users create a personal profile of news topics of interest and the QuikNews Service processes the news as it is received and sends articles matching the selected key words to a user's electronic mailbox.

- QuikNews Services sources include UPI, Deutsche Press-Agentur, Kyodo News Service and Agence France Presse, among others. On-line PR news services include PR Newswire and BusinessWire.

The Sales and Marketing Communication System (SMCS) is a sales automation software package that combines GEIS' global network connectivity and support with a customizable workstation for territorial sales management. SMCS is based on BusinessTalk and consists of integrated modules for lead tracking, order entry, scheduling, tickler file notification, forecasting and call reporting.

The MARK400 Messaging Service links GEIS customers to other messaging users around the world via the internationally standardized open system X.400 recommendation.

Electronic Data Interchange

Products and services in this category support the electronic processing and transmission between trading partners of standard formatted data for business documents in a variety of public and private formats using different protocols and access methods.

GEIS' EDI services are used by clients in trade and transportation, manufacturing and retail industries.

The EDI*EXPRESS Service provides the capabilities for sending, receiving, translating and compliance checking of EDI messages.

- Network access methods currently available include asynchronous, bisynchronous, dial-out, USC NO LOGON, LU6.2, SNI, X.25, X.400 and ODETTE FTP.

- EDI*EXPRESS is designed to communicate with virtually any PC, mainframe, or minicomputer and is available via a local telephone call in 750 cities in more than 35 countries.

- Document or interchange level service is available to users so they can track and monitor system usage.

  - Document Level Service provides the control and audit trails that EDI clients may require. Specific documents can be tracked through the system and checked for compliance with industry standards.

  - Interchange Level Service offers a lower cost, basic EDI network service alternative that enables EDI clients to select a level of service commensurate with the requirements of their applications. This service option complements the Documents Level Service.

EDI*PC™ System is a software package for IBM and compatible microcomputers that allows trading partners to exchange business data in both public and private standard formats to and from the EDI*EXPRESS System.

EDI*CONNECT CICS provides real-time capabilities and compatibility between IBM mainframe-based EDI translation software packages and GEIS' EDI network services.

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The EDI*TRANSIT is an EDI translation and management system, that features mapping capability, translation of all key standards, trading partner administration, task scheduler and functional acknowledgment tracking.

COMMERCE*EXPRESS Application Integrator uses expert systems technology to simplify the EDI mapping process. The Integrator, available for Windows/Windows NT and UNIX/Motif platforms, is GEIS' private brand of software created by American Business Computers.

The EDI*CENTRAL™ Software System is a mainframe translation and management system that supports both centralized and decentralized corporate application environments running on one or multiple computers.

- The system allows the client to send EDI data to and from its in-house application system and provides EDI translation between application data and EDI standard formats.

The EDI*Benchmark is the upgraded mainframe software from GEIS that replaces the EDI*CENTRAL line. The major improvement of Benchmark is that it includes a mapper that runs on a PC so users can easily perform format mapping functions without using mainframe resources.

In March 1994, GEIS announced its POS*Intelligence Service, a Vendor Managed Inventory (VMI) Program. This service can be used for forecasting and replenishment , or for forecasting only.

GEIS also supports several private and industry association networks, including Catspeed (Caterpillar Tractor Company's private EDI implementation), Haggar Apparel Company's HOP (Haggar Order Processing), LeviLink (Levi-Strauss), PETRODEX (the Petroleum Data Exchange System), PUBNET (for textbook publishers and university bookstores) and Transnet (operated by the Motor Equipment Manufacturers Association, Englewood Cliffs, NJ).

In addition, GEIS has EDI-related alliances with various third parties to sell its services along with their software and equipment.

The EDI Customer Support Center provides a range of support services, including routine administration, trading partner implementation assistance, trading partner administrative services, ongoing technical support, billing inquiry services and standard or custom training programs.

Managed Network Services (MNS)

MNS is a specialized teleprocessing service that provides client organizations with custom-tailored network and session management of their international information and communications systems. It provides the following:

- GEIS consultants, with expertise in applications, networking and client support , prepare tailored proposals designed for specific client requirements

- Network and session management using MNS Session Manager, a network management teleprocessing application

- Support in managing the global integration of information by coordinating with third-party vendors such as Postal Telephone and Telegraph (PTT) authorities and by offering the client a single worldwide contract.

- Worldwide support 24 hours a day, seven days a week, once service is in place.

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On-line Consumer Information Service

GEnie™ (GE Network for Information Exchange) is an electronic consumer information service for microcomputer end-users.

- GEnie permits access to a variety of services, including news and information, financial, travel, shopping, computer games and references, electronic mail and real-time conferences.
- GEnie has over 200,000 individual subscribers.

Professional services provided by GEIS include systems development, consulting, training and documentation services.

Marketing and Sales

GEIS products and services are offered through approximately 50 U.S. offices and offices in 35 countries, with global support and access provided by distributors, affiliates, or private data networks in 60 additional countries.

GEIS has domestic offices in New York, Atlanta, Chicago and San Francisco. International offices are in Australia, Austria, Belgium, Canada, Denmark, Egypt, France, Germany, Hong Kong, Ireland, Italy, the Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland and the U.K.

GEIS'' network provides clients with local dial-up services in 750 cities in 35 countries worldwide and is available 24 hours a day. Coverage is extended to an additional 75 countries via public data networks and international record carriers.

The company offers worldwide client support through its staff of over 200 trained specialists that provide skilled, local, in-country support. GEIS Global Support Services group provides support in countries where there is no local presence.

The company is well positioned in the EDI network services market with over 25,000 EDI trading partners, growing 22% annually.

Clients

Some of GEIS' major clients include: PSA Peugeot Citroen, Associated Credit Bureaus (ACB), Hyundai, World Trade Centers Association (WTCA), Microsoft, Toys R Us, JC Penney and Benetton.

Alliances

Alliances formed by GEIS during the past two years include:

- In March 1994, GEIS announced its POS*Intelligence Service, that combines GEIS' EDI*EXPRESS and UPC*EXPRESS II applications with the Demand Forecasting and Quick Response Stock Replenishment System from Lucas-Bear Forecasting Systems (LBFS).
- In December 1993, GEIS signed an agreement with Ameritech Corporation, a leading telecommunications company. Under the agreement, Ameritech will invest $472 million in GEIS, and when the U.S. law permits, this investment will convert to a 30% equity position in GEIS.
- In 1993, GEIS signed an agreement with TRANSAXION of Chile to market GEIS' electronic commerce services and provide user support in key South American countries including Chile, Peru and Bolivia.
- In December 1992, GEIS signed an agreement with Canadian-based Delrina Technology Inc., to market Delrina's PerForm PRO™ forms in

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conjunction with the BusinessTalk System 2000.

- In June 1992, GEIS formed a joint marketing and sales agreement with Sun Microsystems Computer Corporation to promote networked UNIX-based information and document management systems.

- In May 1992, GEIS and American Business Computer (ABC) entered into an agreement that authorized GEIS to market ABC's EDI translator and EDI server programs on a worldwide basis under the GE logo.

Competition

GEIS' major competitors include: AT&T Istel, BT North America (MCI), IBM IN, Infonet, Sprint and Reuters.

In the EDI and electronic mail area, GEIS also competes with Sterling Software (Ordernet), MCI and AT&T EasyLink.

INPUT Assessment

GEIS is in a unique market position as an Electronic Commerce provider, after almost ten years of being considered as a Value Added Network (VAN) Provider.

GEIS is one of today's most comprehensive electronic commerce business solution providers in the world. More than just an EDI software and network service provider, GEIS offers the services of electronic mail, commercial databases, processing services, systems integration services and enhanced facsimile services that are combined in various ways to provide complete business communication solutions to companies.

GEIS' major strength is its suite of applications. It has made its position more secure by allying with a major telecom vendor—Ameritech—a safe position to be in as the VAN market seems to slip away and the excitement surrounding EDI creates an unsettling market for traditional EDI players.

Parent Company:

General Electric Company
3135 Easton Turnpike
Fairfield, CT 06431
(203) 373-2211

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GE INFORMATION SERVICES
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

Hellene S. Runtagh, President
Division of General Electric Company,
Communications and Services Organization
Total Employees: 2,500
Total Revenue, Fiscal Year End
12/31/91: $600,000,000*
Noncaptive Revenue: $580,000,000*

*INPUT estimates

The Company

GE Information Services (GEIS) currently provides transaction and utility processing; inquiry/response, electronic data interchange, and value-added network services; systems integration; and software development and network management professional services to over 13,000 corporate and association clients worldwide. Its focused industries include international banking and financial services, international trade and transportation, retail/apparel/merchandising, telecommunications, automotive/heavy equipment/manufacturing, petroleum/chemical, and high technology.

- GEIS was formed in 1979 as General Electric Information Services Company (GEISCO) to consolidate General Electric Company's (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S. The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1972, when GE purchased Honeywell's interest for approximately $70 million.

- On January 1, 1984, GEISCO once again became an internal component of GE and its legal name became GE Information Services.

- GEIS now reports to GE's Communications and Services Organization (CSO), which was formed in 1986 to meld certain GE operations with former RCA units.

  - GE Consulting Services, based in Rockville (MD), was formerly part of GEIS and now operates as a separate unit under CSO.

  - GE Computer Services, based in Atlanta, was formerly part of GEIS and now operates as a separate unit under CSO.

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INPUT estimates GEIS's total 1991 revenue at $600 million.

- The company had well over 13,000 clients by the end of 1991, compared to under 13,000 clients in 1990, 10,000 clients in 1989, 6,000 clients in 1988 and 5,000 clients in 1987.

- Revenue from services provided to various units of General Electric Company is estimated at $20 million.

GEIS' primary competitors include AT&T Istel, BT North America, IBM IN, Infonet, Sprint International, and Reuters.

- In the EDI and electronic mail area GEIS also competes with Sterling Software (Ordernet), MCI, AT&T Easylink, and various PTT-provided services.

Key Products and Services

INPUT estimates that approximately 82% of GEIS's revenue is derived from network and processing services and the remaining 18% from professional services and systems integration activities.

GEIS offers its clients three delivery systems for its processing/network services as follows:

- The MARK III[R] Service consists of the following major elements, serving over 8,000 clients worldwide, half of whom are based in Europe or have European operations:

  - Foreground Service is the primary offering on the MARK III System, consisting of interactive remote processing on Bull/NEC computers. GEIS offers two libraries consisting of over 2,000 software products, a summary of which is found in Exhibit A.

    - Products are developed by GEIS or licensed from major software vendors. These third-party packages are fully supported by GEIS.

- The MARK 3000[TM] Service is an IBM-compatible companion service to the Bull/NEC-based offerings. Remote batch and interactive processing on large-scale IBM computers is available. Selected applications available on this service are shown in Exhibit B. Usage is split between general business applications and engineering, simulation, and statistical analysis applications.

  - The MARK 9000[SM] Service is a bundled offering of IBM MVS/XA operating environment processing, storage, and IBM-compatible network services.

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EXHIBIT A

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
OPERATING ENVIRONMENT - BULL DPS 90/ACOS 1000	ELECTRONIC DATA INTERCHANGE - EDI*EXPRESS SYSTEM - EDI*PC SYSTEM - EDI*CENTRAL SYSTEM - BANCOR*EXPRESS - BPS CENTRAL
PROGRAMMING LANGUAGES SUPPORTED - FORTRAN 77 - PL1 - COBOL - BASIC	ELECTRONIC MAIL - BUSINESS CONNECT - BUSINESSTALK - QUIK-COM - QUIKNEWS - X.400 ACCESS
DATA MANAGEMENT SOFTWARE - DMS III - FLEXIMIS - HISAM - SAS - DM IV - REQUEST - SYSTEM 2000 - SITE II - MARK IV - EPICS - DCM - MARDATA	ENGINEERING - CIVIL - MECHANICAL - ELECTRICAL AND ELECTRONIC HUMAN RESOURCE MANAGEMENT INSURANCE
DATA BASES AVAILABLE - MAP (ECONOMETRIC DATA BASE) - CURRENCY DATA BASE SERVICE - SECURITIES DATA BASE SERVICE - VALUELINE - NEMA (NATIONAL ELECTRICAL MFG.) - DEPARTMENT OF COMMERCE (SIC) - FEDERAL TRADE COMMISSION - CITIBASE - PETROLEUM INSTITUTE - DWIGHT'S ENERGYDATA - CORPORATE FINANCIAL DATA SERVICE - BUSINESS AND FINANCIAL DATA BANK - COMMODITY FUTURES - AHAM (HOME APPLIANCE MANUFACTURING) - DOW JONES NEWS/RETRIEVAL	INVESTMENT RESOURCE MANAGEMENT INVENTORY CONTROL/ORDER SERVICE GRAPHICS AND PLOTTING LINEAR PROGRAMMING MANUFACTURING - INDUSTRIAL ENGINEERING - PLASTICS ENGINEERING - MANUFACTURING MANAGEMENT - NUMERICAL CONTROL - PRODUCTION SCHEDULING - QUALITY CONTROL MARKETING AND SALES
FINANCIAL APPLICATIONS/TOOLS - GENERAL BUSINESS ACCOUNTING - FINANCIAL ANALYSIS - FORECASTING - AUDITING	MATHEMATICS OPERATIONS RESEARCH AND MODELING PROJECT PLANNING AND MANAGEMENT
BANKING/CASH MANAGEMENT - GLOBAL RISK MANAGEMENT SYSTEMS - TRADE WATCH - FUNDSNET - LEAPP	SIMULATION AND MODELING
CHEMICAL	STATISTICAL ANALYSIS AND FORECASTING
COMMUNICATIONS - TELEPHONE CO. OPERATIONS & FINANCE	TRANSPORTATION - MARINE MANAGEMENT - EQUIPMENT MANAGEMENT SYSTEMS - SHIPMENT TRACKING SYSTEM
CONSTRUCTION	
DISTRIBUTION MANAGEMENT	MISCELLANEOUS - GENIE

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EXHIBIT B

APPLICATIONS AVAILABLE ON MARK 3000 SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME

OPERATING ENVIRONMENT
- IBM 3081, MVS, TSO, CICS
- IBM 4381, VM
- IBM 3090
 	
PROGRAMMING LANGUAGES SUPPORTED
- FORTRAN 77
- COBOL
- PL/1
- BASIC
 	
UTILITY SOFTWARE
- LIBRARIAN
- REMOTE MEDIA SERVICE
- SYNCSORT
 	
PRODUCTIVITY TOOLS
- ACCOLADE
- DOS/OS CONVERSION PACKAGE
- ISPF/PDF
 	
DATA BASE MANAGEMENT
- FOCUS
- IDMS
- SQL/DS
 	
FINANCIAL APPLICATIONS/TOOLS
- GENERAL ACCOUNTING
- FINANCIAL PLANNING (FCP-EPS, IFPS)
- FORECASTING (SIMPLAN)
- BUDGETING AND MODELING (CPL/TACTIX)
 	
GRAPHICS
- TELL-A-GRAF
- DISSPLA
- GDDM
 	
STATISTICS
- SAS
	OTHER INFORMATION MANAGEMENT
	- DCF
	- OXYCALC
	- MEGACALC
	- SCRIPT/VS
	- WYLBUR
	
	PROJECT MANAGEMENT
	- PROJACS
	- PROJECT/2
	
	SCIENTIFIC AND ENGINEERING
	- MECHANICAL ENGINEERING AND DESIGN
	  · NASTRAN
	  · SUPERB
	  · ANSYS
	- CIRCUIT ANALYSIS
	  · ASTAP
	
	ORDER SERVICE
	
	MANUFACTURING
	- PLASTICS ENGINEERING
	
	DISTRIBUTION
	- VEHICLE ROUTING
	- VSPX (VEHICLE SCHEDULING)
	
	MATHEMATICS
	- MPS III
	- MPSX/370
	- SPSS
	
	PLANNING AND MODELING
	- BMDP (PRODUCTION SCHEDULING)
	- CSMP III (SIMULATION)
	- DYNAMO III/F (SIMULATION)
	- GPSS V (SIMULATION)
	- KETNET
	- MAGEN (MATRIX GENERATOR)
	
	OTHER
	- GE*TUTOR

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- The service is targeted to clients whose business requirements include multiple, distributed 9370s, remote access to one 9370, integration of 9370 systems with other mainframe systems, or a CICS capability. It can be used for departmental processing; development, prototyping, and conversions; in distributed configurations for store-and-forward processing and network switching/management; and as a component in custom systems for vertical applications, disaster recovery, and remote facilities management.

- The MARK 9000 Service is available in Europe and the U.S.

- The GEIS Network is the company's worldwide teleprocessing network based on a proprietary packet-switching protocol. It permits multisite organizations to achieve data transmission to dispersed terminals and host computers around the world with approximately 600 access points in the U.S. and in-country direct access in 35 countries.

  - The GEIS network supports asynchronous, IBM-compatible synchronous (including 3270 BSC, 3270 SNA/SDLC, 2780/3780 BSC, 3770 SNA), and X.25 protocols.

  - In addition to supporting interconnections among SNA networks, it offers a variety of error-correcting protocols, such as MNP and XMODEM, and it provides 3270 emulation via NET*CONNECT 3270 and Simware's SIM 3278, SIMPC, and MAC3270.

GEIS services are generally categorized into the following application areas:

- Industry Applications, including Banking and Financial Services, Retail, Trade and Transportation, and Petroleum

- Electronic Data Interchange

- Business Communications

- Managed Network Services

- Network and Processing Services

- On-line Consumer Information Services

Industry Applications:

GE Financial Information Services, formed in 1989, supports international network applications for banking and financial

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institutions. GEIS offers the following products/services which are generally used as part of a distributed processing service:

- FUNDSNET™ Money Transfer System is a microcomputer-based automated money transfer service targeted to corporate treasurers. Through a joint marketing agreement with Racal-Guardata, the Money Transfer System includes end-to-end authentication as a means of protecting the money transfer instructions.

- FUNDSNET™ Balance Reporting System is an automated balance and transaction reporting service used by corporate clients to manage their global cash in an environment of differing time zones and multiple currencies.

- The Global Limits System is a customized software package designed to assist international banks to manage and control their risk exposures in money markets, in credit granting and other operations, 24 hours a day, in trading centers around the world.

- TRADEWATCH™, introduced in September 1989, is a settlement instructions and reporting system for international securities settlement institutions.

- The BANCOR*EXPRESS™ System is an electronic transfer and tracking system designed to facilitate and expedite the worldwide exchange of financial data.

- BPS*CENTRAL™ System, announced in December 1989, allows banks to accept electronic payment/order remittance advices from EDI users, reformat them into ACH payment instruction format, and forward them to a third party's bank through the ACH network for settlement.

  - Incoming ACH instructions may be reformatted to ANSI 820, 823, or BAI lockbox formats. Banks can also use the BPS*CENTRAL System for internal EDI processing with customers and suppliers.

- The Leveraged EDI and Payments Program (LEAPP), introduced in 1989, is a multilevel EDI/EFT program for banks. LEAPP provides banks the opportunity to combine their corporate client relationships and payments expertise with GEIS' EDI network capabilities.

In the retail area, GEIS supports EDI, electronic payments, UPC catalogs/bar code management, and communications between business partners.

- In July 1991, GEIS announced the commercial availability of the RETAIL*TALK Service which combines electronic mail,

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specialized data bases, industry directories, electronic news services, and bulletin boards via a PC-based system to complement EDI transactions between retailers and their suppliers.

- UPC*EXPRESS Catalog is a service that manages and distributes Universal Product Code (UPC) numbers and their description information for vendors and their retailers. This data base is integrated with the EDI*EXPRESS System to electronically maintain and receive UPC catalog updates.

- Credit*PRO™, announced in 1989, is a fully integrated credit management system that automates and manages all the functions required for a retailer to offer credit to customers. Credit*PRO is available as a software package or on a service bureau basis.

In the area of trade and transportation, GEIS supports EDI, equipment management, consignment tracking, and motor carrier sales and marketing.

- CARGO*LINK Services is a global network-based service targeted to the trade and transport industries that incorporates EDI for shipment data exchange, data base access for transport business information, consignment tracking, and electronic mail.

- In June 1991, GEIS was selected by The World Trade Centers Association (WTCA) to provide all communication and computer services in support of WTCA's NETWORK electronic trading and information system.

In the petroleum industry, GEIS provides network services in support of various EDI applications.

- PETRODEX is a family of EDI applications that electronically exchanges accounting information among U.S. and Canadian petroleum companies. GEIS is the sole network service provider of PETRODEX.

- In August 1991, GEIS announced the PRICE*NOTICE Service (PNS) which allows petroleum suppliers to send price change notifications, bank draft advices, invoices, and other business documents to their wholesalers and jobbers via GEIS' network.

Electronic Data Interchange:

EDI products and services support the electronic processing and transmission between trading partners of standard formatted data for business documents in a variety of public and private formats using different protocols and access methods. INPUT estimates that EDI-related products and services contributed $30 million to GEIS' 1990

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revenue. For 1991, it is estimated that these products and services will generate about $45 million in revenue.

- GEIS' EDI services are used by clients in the trade and transportation, manufacturing, and retail industries. GEIS' EDI network currently connects more than 8,400 trading partners worldwide that send over two million documents a month through the network.

The EDI*EXPRESS℠ Service, introduced in 1985, provides the capabilities for sending, receiving, translating, and compliance checking of EDI messages.

- Network access methods currently available include asynch, bisynch, dial-out, USC NO LOGON, LU6.2, SNI, X.25, X.400, and ODETTE FTP.

- EDI*EXPRESS is designed to communicate with virtually any PC, mainframe, or minicomputer and is available via a local telephone call in 750 cities in more than 35 countries.

- Document or interchange level service is available to users so they can track and monitor system usage.

  - Document Level Service provides the control and audit trails that EDI clients may require. Specific documents can be tracked through the system and checked for compliance with industry standards.

  - Interchange Level Service offers a lower cost, basic EDI network service alternative that enables EDI clients to select a level of service commensurate with the requirements of their applications. This service option complements the Document Level Service.

- EDI*EXPRESS Service has more than 10,000 users worldwide in its trading partner community and has interconnects to all the major public and many of the private EDI networks.

The EDI*PC™ System, introduced in 1985, is a software package for IBM and compatible microcomputers that allows trading partners to exchange business data in both public and private standard formats to and from the EDI*EXPRESS System.

- The software can be used as a standalone workstation or as a front-end to an application residing on other systems. The software licenses for $1,450.

The EDI*CENTRAL™ Software System, introduced in 1988, is a mainframe translation and management system that supports both

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centralized and decentralized corporate application environments running on one or multiple computers.

- The system allows the client to send EDI data to and from its in-house application system and provides EDI translation between application data and EDI standard formats.

- The system licenses for $20,000 for the first copy, with additional copies per company at $12,000 each. The annual subscription service fee is $2,400 after the first year.

The DESIGN*EXPRESS™ System is a family of products that allows engineering/manufacturing design data to be processed and transmitted electronically in several types of document formats through a variety of protocol access methods.

- DESIGN*PC™ System is a fully integrated microcomputer workstation for asynchronous and synchronous communications.

GEIS also supports several private and industry association networks, including Catspeed (Caterpillar Tractor Company's private EDI implementation), Haggar Apparel Company's HOP (Haggar Order Processing), LeviLink (Levi-Strauss), PETRODEX (the Petroleum Data Exchange System), PUBNET (for textbook publishers and university bookstores), and Transnet (operated by the Motor Equipment Manufacturers Association, Englewood Cliffs, NJ).

GEIS also has EDI-related alliances with various third parties to sell its services along with their software and equipment.

The EDI Customer Support Center provides a range of support services, including routine administration, trading partner implementation assistance, trading partner administrative services, ongoing technical support, billing inquiry services, and standard or custom training programs.

Business Communications Products and Services:

GEIS offers a range of electronic messaging and related business communications services that link a customer's geographically dispersed operations with GEIS' worldwide teleprocessing network.

The QUIK-COMM™ System is a global electronic messaging service that allows users to exchange electronic mail messages worldwide, 24 hours per day, seven days per week. Both public and private electronic mail communities are available.

- Personal Computer Mailbox is GEIS' PC-based front-end to the Quik-COMM System. Users can create and file messages on their

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PCs as well as send and receive mail at their convenience. Users can also exchange files in ASCII or binary format.

- PC Mailbox Multiuser provides messaging capabilities in a multi-user environment. Office coordinators can manage messages for a group as well as perform other administrative tasks using Personal Computer Mailbox.

QUIK-COMM users have access to the following electronic messaging delivery services:

- Fax delivery of messages
- Telex delivery of messages
- Hardcopy delivery anywhere within the continental U.S. or Canada via the QUIK-GRAM™ Service
- X.400 delivery, with QUIK-COMM users exchanging messages with users on the major public electronic mail services. GEIS has X.400 service interconnection agreements with major organizations in most European countries, including AT&T , AT&T EasyLink, France Transpac, Swiss PTT, Radio Austria, Deutsche Bundespost Telekom, Swedish Telecom International, Helsinki Telephone Company, Finnish PTT, BT North America, BT Plc, PTT Telecom Netherlands, Norwegian Telecom, MCI, Sprint International Data Services, and IBM Information Network. Agreements with other vendors are under negotiation.
- The BusinessConnect™ System, introduced in 1990, allows QUIK-COMM users to exchange messages with users on dissimilar host, mini, or LAN-based messaging systems, including cc:Mail; CompletE-Mail; DaVinci EMAIL; DEC ALL-IN-1, VMS Mail and Message Router; IBM AS/400 Office and System/3X, DISOSS, and PROFS; MHS; Network Courier; Wang OFFICE; and 3COM 3+Mail.

The BusinessTalk™ System is an intelligent communications capability designed to process, distribute, and retrieve information for members of a geographically dispersed business community through an Apple Macintosh or IBM PC-compatible computer. BusinessTalk combines the functions of QUIK-COMM electronic messaging with access to public and private keyword-searchable information data bases and electronic bulletin boards.

The QuikNews™ Service is an electronic news clipping service that delivers selected newswire articles to a QUIK-COMM user's mailbox.

- Users create a personal profile of news topics of interest and the QuikNews Service processes the news as it is received and sends

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articles matching the selected key words to a user's electronic mailbox.

- QuikNews Services sources include UPI, Deutsche Press-Agentur, Kyodo News Service, and Agence France Presse, among others. On-line PR news services include PR Newswire and BusinessWire.

The Sales Marketing Communication System (SMCS), introduced in 1991, is a sales automation software package that combines GEIS' global network connectivity and support with a customizable workstation for territorial sales management. SMCS is based on BusinessTalk and consists of integrated modules for lead tracking, order entry, scheduling, tickler file notification, forecasting, and call reporting.

In March 1991, GE announced that it had a contract from the Netherlands Ministry of Internal Affairs agency (called GBA) to develop and operate an electronic message handling service for Dutch government and municipal offices (some 1,000 offices altogether). This X.400 based service follows from a pilot service set up for GBA in 1987.

Network Services:

The MARK*NET Service is a value-added network service offered only to clients in the U.S. and Canada through direct access, based on the GEIS Network and local support services in both countries.

- A MARK*NET client who has users outside of North America typically accesses the service via the Public Data Network (PDN) in the local country, interconnected to MARK*NET via International Record Carrier (IRC) gateways. GEIS provides international access to MARK*NET in this manner from approximately 70 countries.

- MARK*NET Service has all the technical functionality inherent in the GEIS network, including multiple protocol support, protocol conversion services, error correcting protocols, full network redundancy, a security administration and control system, and on-line monitoring capabilities.

- Access nodes include dedicated leased-line access, private dial access, and public dial access.

Managed Network Services:

Managed Network Services (MNS), introduced in 1987, is a specialized teleprocessing service that provides client organizations with custom-tailored network and session management of their international information and communications systems.

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MNS is a single, integrated service that provides the following:

- GEIS consultants, with expertise in applications, networking, and client support, prepare tailored proposals designed for specific client requirements
- Network and session management using MNS Session Manager, a network management teleprocessing application
- Support in managing the global integration of information by coordinating with third-party vendors such as Postal Telephone and Telegraph (PTT) authorities and by offering the client a single worldwide contract.
- Worldwide support 24 hours a day, seven days a week, once service is in place.

There are currently approximately 70 multinational clients using MNS, of whom some 30 are Europe-based companies.

On-line Consumer Information Services:

GEnie™ (GE Network for Information Exchange) is an electronic consumer information service for microcomputer end users.

- GEnie permits access to a variety of services, including news and information, financial, travel, shopping, computer games and references, electronic mail, and real-time conferences.
- First marketed in October 1985, GEnie now has over 180,000 individual subscribers throughout the U.S. and Canada and in 20 cities in Japan.
- By June 1991, it was available in Europe in Austria, Germany and Switzerland.

Professional services provided by GEIS include systems development and consulting, training, and documentation services.

Industry Markets

GEIS' revenue is derived approximately as follows:

Banking	40%
Manufacturing	32%
Telecommunications	10%
Trade and Transportation	10%
Retail	5%
Other	3%
	100%

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GEIS currently has a client base of over 13,000 corporations and trade associations.

Geographic Markets

Approximately 60% of GEIS's revenue is derived from the U.S. and 40% from international sources.

GEIS products and services are offered through approximately 50 U.S. offices and offices in 34 countries, with global support and access provided by distributors, affiliates, or private data networks in 60 additional countries.

- U.S. regional offices are located in New York City, Atlanta, Chicago, and San Francisco.
- International offices are located in Australia, Austria, Belgium, Canada, France, Germany, Hong Kong, Ireland, Italy, the Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, and the U.K.

Software Development Centers are located in Rockville (MD), Nashville (TN), and Dublin (Ireland).

GEIS's network provides clients with local dial-up services in 750 cities in more than 30 countries worldwide and is available 24 hours a day, seven days a week, 365 days a year. Coverage is extended to more than 90 countries by interconnections with public data networks and international record carriers.

Computer Hardware and Software

The GEIS network uses over 6,000 processing and communications computers, including over 500 minicomputers. Over 400 of these are Bull PMSDs, used to handle communications. Large-scale IBM, Bull and NEC processors are concentrated in supercenters in Rockville, Cleveland, Amsterdam and Tokyo.

- Twenty-seven Bull/NEC DPS 90/ACOS 1000s and two Bull DPS-9000s operating under GEIS proprietary software for interactive processing, on the MARK III service.
- One IBM 3090, one IBM 3081, one IBM 9121 and one IBM 4381 for interactive and remote batch processing on the MARK 3000 Service.

GEIS's teleprocessing network handles over 400,000 user sessions per day, transmitting over 300 million characters of data in and out of the system per hour.

The network uses VSAT satellite links, microwave links, 25 trans-oceanic undersea cables, and 350,000 miles of land lines.

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GE INFORMATION SERVICES
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

Hellene S. Runtagh, President
Division of General Electric Company,
Communications and Services
Organization
Total Employees: 2,600
Total Revenue, Fiscal Year End
12/31/89: $525,000,000*
Noncaptive Revenue: $500,000,000*
*INPUT estimate

The Company

GE Information Services (GEIS) currently provides transaction and utility processing; inquiry/response, electronic data interchange, and value-added network services; systems integration; and software development and network management professional services to over 10,000 clients worldwide. Its focused industries include international banking and financial services, international trade and transportation, retail/apparel/merchandising, telecommunications, automotive/heavy equipment/manufacturing, petroleum/chemical, and high technology.

- GEIS was formed in 1979 as General Electric Information Services Company (GEISCO) to consolidate General Electric Company's (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S. The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1972, when GE purchased Honeywell's interest for approximately $70 million.

- On January 1, 1984, GEISCO once again became an internal component of GE and its legal name became GE Information Services.

- GEIS now reports to GE's Communications and Services Organization (CSO), which was formed in 1986 to meld certain GE operations with former RCA units.

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- GE Consulting Services, based in Rockville (MD), was formerly part of GEIS and now operates as a separate unit under CSO.

- GE Computer Services, based in Atlanta, was formerly part of GEIS and now operates as a separate unit under CSO.

INPUT estimates that GEIS's total 1989 revenue was approximately $525 million.

- The company had approximately 10,000 client by the end of 1989, compared to 6,000 clients in 1988 and 5,000 clients in 1987.

- Revenue provided to various units of General Electric Company is estimated at approximately 5% of total revenue.

Effective October 1989, Hellene S. Runtagh was appointed President of GEIS, replacing James McNerney Jr. who has been promoted to executive vice president of GE Capital.

During early 1989, GEIS sold its EMC*EXPRESS electronic medical claims business to GTE Information Services. Terms of the sale were not disclosed. INPUT estimates that EMC*EXPRESS contributed less than $500,000 to GEIS' 1988 revenue.

GEIS' primary competitors include BT Tymnet, IBM, Infonet, Telenet, Automatic Data Processing (Autonet), and Reuters.

- In the EDI and electronic mail area GEIS also competes with Sterling Software (Ordernet), MCI, Western Union, and various PTT-provided services.

Key Products and Services

INPUT estimates that over 85% of GEIS's 1989 revenue was derived from network and processing services, and the remaining 15% from professional services and systems integration activities.

GEIS offers its clients three delivery systems for its processing/network services as follows:

- The MARK III[R] Service consists of the following major elements, serving over 8,000 clients:

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- Foreground Service is the primary offering on the MARK III System, consisting of interactive remote processing on Honeywell computers. GEIS offers two libraries consisting of over 2,000 software products, a summary of which is found in Exhibit A.

  - Certain products were developed by GEIS or licensed from major software vendors. These packages are fully supported by GEIS.

- Background Service augments interactive processing with remote batch capability on Honeywell computers. GEIS computers can be connected to in-house equipment for inter-processing.

- The MARK 3000™ Service is an IBM-compatible companion service to the Honeywell-based offerings. Remote batch and interactive processing on large-scale IBM computers is available. Selected applications available on this service are shown in Exhibit B. Usage is split between general business applications and engineering, simulation, and statistical analysis applications.

  - The MARK 9000℠ Service, announced in January 1988, is a bundled offering of IBM MVS/XA operating environment processing, storage, and IBM-compatible network services.

    - The service is targeted to clients whose business requirements include multiple, distributed 9370s, remote access to one 9370, the integration of their 9370 systems with other mainframe systems, or a CICS capability. It can be used for departmental processing; development, prototyping, and conversions; in distributed configurations for store-and-forward processing and network switching/management; and as a component in custom systems for vertical applications, disaster recovery, and remote facilities management.

    - The MARK 9000 Service is available in Europe and the U.S. GEIS already has several contracts from the U.S., France, Italy, and the U.K. Current clients include National Westminister Bank.

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EXHIBIT A

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
OPERATING ENVIRONMENT - HONEYWELL DPS 90/ACOS 1000 - HONEYWELL DPS-8/70, GCOS PROGRAMMING LANGUAGES SUPPORTED - FORTRAN 77 - PL1 - COBOL - BASIC DATA MANAGEMENT SOFTWARE - DMS III - FLEXIMIS - HISAM - SAS - DM IV - REQUEST - SYSTEM 2000 - SITE II - MARK IV - EPICS - DCM - MARDATA DATA BASES AVAILABLE - MAP (ECONOMETRIC DATA BASE) - CURRENCY DATA BASE SERVICE - SECURITIES DATA BASE SERVICE - VALUELINE - NEMA (NATIONAL ELECTRICAL MFG.) - DEPARTMENT OF COMMERCE (SIC) - FEDERAL TRADE COMMISSION - CITIBASE - PETROLEUM INSTITUTE - DWIGHT'S ENERGYDATA - CORPORATE FINANCIAL DATA SERVICE - BUSINESS AND FINANCIAL DATA BANK - COMMODITY FUTURES - AHAM (HOME APPLIANCE MANUFACTURING) - DOW JONES NEWS/RETRIEVAL FINANCIAL APPLICATIONS/TOOLS - GENERAL BUSINESS ACCOUNTING - FINANCIAL ANALYSIS - FORECASTING - AUDITING BANKING/CASH MANAGEMENT - GLOBAL RISK MANAGEMENT SYSTEMS CHEMICAL COMMUNICATIONS - TELEPHONE CO. OPERATIONS & FINANCE CONSTRUCTION DISTRIBUTION MANAGEMENT	ELECTRONIC DATA INTERCHANGE - EDI*EXPRESS SYSTEM - EDI*PC SYSTEM - EDI*CENTRAL SYSTEM ELECTRONIC MAIL - BUSINESSTALK - QUIK-COMM ENGINEERING - CIVIL - MECHANICAL - ELECTRICAL AND ELECTRONIC HUMAN RESOURCE MANAGEMENT INSURANCE INVESTMENT RESOURCE MANAGEMENT INVENTORY CONTROL/ORDER SERVICE GRAPHICS AND PLOTTING LINEAR PROGRAMMING MANUFACTURING - INDUSTRIAL ENGINEERING - PLASTICS ENGINEERING - MANUFACTURING MANAGEMENT - NUMERICAL CONTROL - PRODUCTION SCHEDULING - QUALITY CONTROL MARKETING AND SALES MATHEMATICS OPERATIONS RESEARCH AND MODELING PROJECT PLANNING AND MANAGEMENT SIMULATION AND MODELING STATISTICAL ANALYSIS AND FORECASTING TRANSPORTATION - MARINE MANAGEMENT - EQUIPMENT MANAGEMENT SYSTEMS - SHIPMENT TRACKING SYSTEM MISCELLANEOUS - GENIE

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EXHIBIT B

APPLICATIONS AVAILABLE ON MARK 3000 SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
OPERATING ENVIRONMENT - IBM 3081, MVS, TSO, CICS - IBM 4381, VM - IBM 9000 PROGRAMMING LANGUAGES SUPPORTED - FORTRAN 77 - COBOL - PL/1 - BASIC UTILITY SOFTWARE - LIBRARIAN - REMOTE MEDIA SERVICE - SYNCSORT PRODUCTIVITY TOOLS - ACCOLADE - DOS/OS CONVERSION PACKAGE - ISPF/PDF DATA BASE MANAGEMENT - FOCUS - IDMS - SQL/DS FINANCIAL APPLICATIONS/TOOLS - GENERAL ACCOUNTING - FINANCIAL PLANNING (FCP-EPS, IFPS) - FORECASTING (SIMPLAN) - BUDGETING AND MODELING (CPL/TACTIX) GRAPHICS - TELL-A-GRAF - DISSPLA - GDDM STATISTICS - SAS	OTHER INFORMATION MANAGEMENT - DCF - OXYCALC - MEGACALC - SCRIPT/VS - WYLBUR PROJECT MANAGEMENT - PROJACS - PROJECT/2 SCIENTIFIC AND ENGINEERING - MECHANICAL ENGINEERING AND DESIGN • NASTRAN • SUPERB • ANSYS - CIRCUIT ANALYSIS • ASTAP ORDER SERVICE MANUFACTURING - PLASTICS ENGINEERING DISTRIBUTION - VEHICLE ROUTING - VSPX (VEHICLE SCHEDULING) MATHEMATICS - MPS III - MPSX/370 - SPSS PLANNING AND MODELING - BMDP (PRODUCTION SCHEDULING) - CSMP III (SIMULATION) - DYNAMO III/F (SIMULATION) - GPSS V (SIMULATION) - KETNET - MAGEN (MATRIX GENERATOR) OTHER - GE*TUTOR

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- The GEIS Network is the company's worldwide teleprocessing network based on a proprietary packet-switching protocol. It permits multisite organizations to achieve data transmission to dispersed terminals and host computers around the world with approximately 600 access points in the U.S. and in-country direct access in 35 countries.

  - The GEIS network supports asynchronous, IBM-compatible synchronous (including 3270 BSC, 3270 SNA/SDLC, 2780/3780 BSC, 3770 SNA), and X.25 protocols.

  - In addition to supporting SNI interconnections among SNA networks, it offers a variety of error-correcting protocols, such as MNP and XMODEM, and it provides 3270 emulation via NET*CONNECT 3270 and Simware's SIM 3278, SIMPC, and MAC3270.

GEIS services are categorized into the following application areas:

- International Banking and Financial Services
- Electronic Data Interchange Products and Services
- Business Communications Products and Services
- Value-Added Network Services
- Managed Network Services
- On-line Consumer Information Services

International Banking and Financial Services:

GE Financial Information Services, a unit of GEIS formed in 1989, supports international network applications for banking and financial institutions. GEIS offers the following products/services which are generally used as part of a distributed processing service:

- FUNDSNET™ Money Transfer System is a microcomputer-based automated money transfer service targeted to corporate treasurers. Through a joint marketing agreement with Racal-Guardata, the Money Transfer System includes end-to-end authentication as a means of protecting the money transfer instructions.

- FUNDSNET™ Balance Reporting System is an automated balance and transaction reporting service used by corporate

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clients to manage their global cash in an environment of differing time zones and multiple currencies.

- The Global Limits System is a customized software package designed to assist international banks manage and control market, credit, and operational risks and exposures, 24 hours a day, in trading centers around the world.

- TRADEWATCH™, introduced in September 1989, is a settlement instructions and reporting system for international securities settlement institutions.

- The BANCOR*EXPRESS™ System is an electronic transfer and tracking system designed to facilitate and expedite the worldwide exchange of financial data.

- BPS*CENTRAL™ System, announced in December 1989, allows banks to accept electronic payment/order remittance advices from EDI users, reformat them into ACH payment instruction format, and forward them to a third party's bank through the ACH network for settlement.

  - Incoming ACH instructions may be reformatted to ANSI 820, 823, or BAI lockbox formats. Banks can also use the BPS*CENTRAL System for their internal EDI processing with their customers and suppliers.

  - The first two banks to use the BPS*CENTRAL System are First Interstate Bank (Los Angeles) and SEAFIRST (Seattle).

- In November 1989, GEIS introduced the availabililty of Leveraged EDI and Payments Program (LEAPP), a multilevel EDI/EFT program for banks. LEAPP provides banks the opportunity to combine their corporate client relationships and payments expertise with GEIS' EDI network capabilities.

Electronic Data Interchange Products and Services:

EDI products and services support the electronic processing and transmission between trading partners of standard formatted data for business documents in a variety of public and private formats using different protocols and access methods.

- GEIS' EDI services are used by clients in the trade and transportation, manufacturing, and retail industries. GEIS' EDI network currently connects more than 6,000 trading partners worldwide.

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- The EDI*EXPRESS™ System, introduced in November 1985, provides the capabilities for sending, receiving, translating, and compliance checking of EDI messages. The system also provides document and/or interchange level auditing and reporting to the user for tracking and monitoring system usage.

  - Two levels of service are available. The Interchange Level Service, announced in December 1989, enables customers to select a level of service commensurate with the requirements of their applications. The service performs control verification and provides tracking reports for interchanges. The Document Level Service, available since 1987, offers network control verification and tracking at both the interchange and document levels.

  - EPS*EXPRESS™ Service, introduced in January 1990, permits EDI*EXPRESS clients to initiate electronic payments to their vendors.

- The EDI*PC™ System, introduced in November 1985, is a software package for IBM and compatible microcomputers that allows trading partners to send and receive EDI documents and status reports in a standard format to and from the EDI*EXPRESS System. It can be used as a workstation or as a front-end to an in-house computer for translation. The software licenses for $1,450.

- The EDI*CENTRAL™ System, introduced in July 1988, is a mainframe software package supporting COBOL 74 for mainframe EDI gateways supporting multiple distributed business applications. It allows the client to send EDI data to and from its in-house application system and provides EDI translation between application data and EDI standard formats. The system licenses for $20,000 for the first copy, with additional copies per company at $12,000 each. The annual subscription service fee is $2,400 after the first year.

- The DESIGN*EXPRESS™ System is a family of products that allows engineering/manufacturing design data to be processed and transmitted electronically in several types of document formats. DESIGN*EXPRESS products became commercially available in the U.S. in 1989.

  - GEIS has designated Microdynamics (Dallas) as a Value-Added Service Provider for DESIGN*EXPRESS to the sewn-goods industry.

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- In February 1989, GEIS announced an alliance with International TechneGroup Inc. (ITI) whereby ITI will provide CAD translation software and consulting services to users of GEIS' DESIGN*EXPRESS services.

- UPC*EXPRESS Catalog is a service that manages and distributes Universal Product Code (UPC) numbers and their description information for vendors and their retailers. This data base of UPC information is integrated with the EDI*EXPRESS System so that vendors and retailers can use EDI to electronically maintain and receive UPC catalog updates.

- GEIS also supports several private and industry association networks, including Catspeed (Caterpillar Tractor Company's private EDI implementation), Haggar Apparel Company's HOP (Haggar Order Processing), LeviLink (Levi-Strauss), PetroEx (the Petroleum Data Exchange System), The Poand Transnet (operated by the Motor Equipment Manufacturers Association, Englewood Cliffs, NJ).

- Other EDI-related activities include the following:

  - In November 1989, Sea-Land Service Inc., Rotterdam, selected GEIS' EDI network service to connect EDI trading partners in the U.K.

  - In June 1989, GEIS was awarded a one-year contract (with two option years) by the General Services Administration (GSA) to provide EDI services to the GSA/Federal Supply Service. GEIS will provide EDI*CENTRAL software for a Honeywell DPS8 mainframe and will provide EDI*EXPRESS network services as the interface to GSA's electronic trading partners.

  - GEIS is supplying network-based services in six European countries to Electronic Data Systems as part of EDS' EDI project for General Motors.

  - Working with Baxter Travenol (Deerfield, IL), GEIS is expanding the scope of that company's ASAP Express private EDI purchasing clearinghouse system for hospitals.

  - GEIS Ltd. has joined with STC International Computers Ltd. (formerly ICL) to form International Network Services Ltd.(INS), offering EDI services in the U.K.. In February 1988, INS launched its international "Bridge," joining the INS U.K. EDI services to the EDI service provided by GEIS.

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- GEIS was selected by CEFIC, the European Council of Chemical Manufacturers' Federations, as the single clearinghouse to provide EDI services to the CEFIC EDI trial for the European Chemical Industry.

- With Finland's Nokia Information Network Services, the company established a processing center in 1988 for domestic and international EDI, licensing its EDI software to the partner.

- GEIS and Swedish software firm Transtema are integrating their systems and services, targeting the freight and shipping industries.

- In May 1988, GEIS was selected by the Port Authority of New York & New Jersey to provide the EDI*EXPRESS System to the Port's Automated Cargo Expediting System. The system became commercially available in May 1989.

• GEIS has EDI-related alliances with various third parties to sell its services along with their software and equipment. The company currently has agreements with:

  - ACS Network Systems (Concord, CA) for sales to the apparel industry.

  - American Business Computer (Farmington Hills, MI) for the automotive industry.

  - Can/Am Tech (Hamilton, Ontario) for sales and support in the metals industry.

  - McCormack & Dodge (Natick, MA) for software integration.

  - Microdynamics (Dallas, TX) for DESIGN*EXPRESS to the sewn-goods and apparel industry.

  - Management Science America (Atlanta, GA) for general joint marketing.

  - Supply-Tech (Southfield, MI) for sales to the automotive industry.

• GEIS also provides EDI implementation services, including training, conducting trading partner conferences, follow-up conferences with technical support, developing specialized test procedures, customizing documentation, and providing overall project management.

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Business Communications Products and Services:

GEIS offers a family of products for office communications and automation linking geographically dispersed operations via its worldwide teleprocessing network.

- The BusinessTalk™ System is an intelligent communications capability designed to process, distribute, and retrieve information for members of a geographically dispersed business community via the MARK III Foreground Service through an Apple Macintosh or IBM PC-compatible computer. BusinessTalk combines the functions of textual data bases with a key word search, bulletin boards, electronic mail, and graphics.

- The QUIK-COMM™ System is a global electronic mailbox service that is designed to integrate multisite, multinational business communications for public and private mail systems. The system accommodates eight languages in addition to English.

- Personal Computer Mailbox is a microcomputer-based integrated application program designed to provide a user with the tools necessary to write, send, receive, and file QUIK-COMM messages.

- PC Mailbox Multiuser allows for mail administration for multiple QUIK-COMM users and allows a microcomputer to function as an internal message center.

- Bulletin Board provides electronic information sharing with large public and private audiences via one-way and two-way electronic communications.

- Telex Access permits QUIK-COMM users to send messages to and receive messages from Telex addresses during a QUIK-COMM session.

- QUIK-GRAM™ Service enables QUIK-COMM users to deliver electronically produced paper mail messages to virtually anyone with a U.S or Canadian postal address.

- QUIK-COMM to FAX allows QUIK-COMM messages to be send directly from a PC to fax machines.

- QUIK-COMM Service Connectors are interface capabilities that permit users of IBM PROFS, DISOSS, DEC All-In-1, Wang OFFICE, Rydex Messaging System (IBM AS/400 or

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System/3x), 3+Mail LAN System, or CC:Mail LAN Systems to send messages/documents to QUIK-COMM users.

- In October 1989, GEIS announced the commercial availability in the U.S. of X.400 standard access to the QUIK-COMM family of products. In February 1990, GEIS announced an X.400 interconnect to Western Union's EasyLink electronic messaging service.

Value-Added Network Services:

The MARK*NET Service is a value-added network service offered to clients in the U.S. and Canada through direct access, based on the GEIS Network and local support services in both countries.

- A MARK*NET client who has users outside of North America typically accesses the service via Public Data Network (PDN) access in the local country, interconnected to MARK*NET via International Record Carrier (IRC) gateways. GEIS provides international access to MARK*NET in this manner from approximately 70 countries.

- MARK*NET Service has all the technical functionality inherent in the GEIS network, including multiple protocol support, protocol conversion services, error correcting protocols, full network redundancy, a security administration and control system, and on-line monitoring capabilities.

- Access nodes include dedicated leased line access, private dial access, and public dial access.

Managed Network Services:

Managed Network Services (MNS), introduced in 1987, is a specialized teleprocessing service that provides client organizations with custom-tailored network and session management of their international information and communications systems.

- MNS is a single, integrated service that provides the following:

  - GEIS consultants, with expertise in applications, networking, and client support, prepare tailored proposals designed for specific client requirements

  - Network and session management using MNS Session Manager, a network management teleprocessing application

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- Support in managing the global integration of information by coordinating with third-party vendors such as Postal Telephone and Telegraph (PTT) authorities and by offering the client a single worldwide contract.

- Worldwide support 24 hours a day, seven days a week once service is in place.

- There are currently approximately 25 multinational clients using MNS.

On-line Consumer Information Services:

GEnie™ (GE Network for Information Exchange) is an electronic consumer information service for microcomputer end users.

- GEnie permits access to a variety of services, including news and information, financial, travel, shopping, computer games and references, electronic mail, and real-time conferences.

- Services added to GEnie during 1989 include Charles Schwab's discount brokerage and investment information services, Newsbytes News Service, and the Executive Desk Register of Publicly Held Corporations.

- In October 1989, GEIS announced expanded GEnie service access to 166 cities throughout Canada via Telecom Canada's iNet 2000 gateway service.

- Commercialized in October 1985, GEnie now has over 180,000 individual subscribers throughout the U.S. and Canada and in 20 cities in Japan.

Other network-related announcements include the following:

- In February 1990, U.S. 2400 bps asychronous dial-up service availability was expanded from 393 cities as of year-end 1989 to 510 cities. In November 1989, GEIS also eliminated the $1.00/hour 2400 bps access surcharge in its VAN service. GEIS will also be expanding its international 2400 bps capability in the near future and expects to begin 9600 bps asychronous dial-up capability deployment in early 1990.

- Credit*PRO™, announced in September 1989, is a fully integrated credit management system that automates and manages all the functions required for a retailer to offer credit to customers. Credit*PRO is available as a software package or on a service bureau basis.

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- In June 1989, GEIS signed a joint venture agreement with STET, the telecommunications and electronics holding company of the Italian industrial conglomerate IRI.
  - Under the agreement, STET acquired a 40% interest in GEIS-Italy, GEIS's wholly-owned subsidiary in Italy. The company will be operated as a joint venture of STET and GEIS to provide value-added network services in Italy.

Professional services provided by GEIS include systems development and consulting, training, and documentation services.

Industry Markets

GEIS' 1989 revenue was derived approximately as follows:

Banking	40%
Manufacturing	32%
Telecommunications	10%
Transportation	10%
Retail	5%
Other	3%
	100%

GEIS currently has a client base of over 10,000 corporations and trade associations.

Geographic Markets

Approximately 50% of GEIS's 1989 revenue was derived from the U.S. and 50% from international sources.

GEIS products and services are offered through approximately 50 U.S. offices and offices in 34 countries, with global support and access provided by distributors, affiliates, or private data networks in 60 additional countries.

- U.S. regional offices are located in New York City, Atlanta, Chicago, and San Francisco.
- International offices are located in Australia, Austria, Belgium, Canada, France, Germany, Hong Kong, Ireland, Italy, The Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, and the U.K.

Software Development Centers are located in Rockville (MD), Nashville (TN), and Dublin (Ireland).

GEIS's network provides clients with local dial-up services in 750 cities in more than 30 countries worldwide and is available 24

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hours a day, seven days a week, 365 days a year. Coverage is extended to more than 90 countries by interconnections with public data networks and international record carriers.

Computer Hardware and Software

The GEIS network uses over 6,000 processing and communications computers, including over 500 minicomputers. Over 400 of these are Honeywell PMSDs, used to handle communications. Large-scale IBM and Honeywell processors are concentrated in supercenters in Rockville, Cleveland, and Amstelveen. These consist of:

- Fourteen Honeywell DPS 90/ACOS 1000s and seven Honeywell DPS-8/70s operating under GEIS proprietary software for interactive processing, and 15 Honeywell DPS-8/70s running under GCOS for background remote batch processing.
- One IBM 3081, one IBM 3090, and one IBM 4341 for interactive and remote batch processing on the MARK 3000 Service.

GEIS's teleprocessing network handles over 400,000 user sessions per day, transmitting over 300 million characters of data in and out of the system per hour.

The network consists of VSAT satellite links, microwave links, undersea cables, and 350,000 miles of circuits.

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GE INFORMATION SERVICES
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

W. James McNerney, Jr., President and CEO
Division of General Electric Company, Communications and Services Organization
Total Employees: 2,300 (12/87)
Total Revenue, Fiscal Year End 12/31/87: $400,000,000*
Noncaptive Revenue: $380,000,000*
*INPUT estimate

The Company

GE Information Services (GEIS) was formed in 1979 as General Electric Information Services Company (GEISCO) to consolidate General Electric Company's (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S. The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1972, when GE purchased Honeywell's interest for approximately $70 million.

- During mid-1985 the company announced a restructuring of its organization aimed at strengthening its competitive position through increased concentration on high growth specialized businesses, including business communications, financial management and reporting systems, supplier and dealer systems, international trade and transportation, and a portfolio of electronic data interchange (EDI) services.

- Effective October 1, 1986, GEIS began reporting to GE's Communications and Services Organization (CSO) which was formed to meld certain GE operations with former RCA units.

  - GE Consulting Services, which was formerly part of GEIS, now operates as a separate unit under CSO.

  - Software International, which was also formerly part of GEIS, operated as a separate unit of CSO until December 1986 when it was sold to Computer Associates International.

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- GE Computer Services, based in Atlanta, which was formerly part of GEIS, now operates as a separate unit under CSO.

GEIS currently provides remote computing, inquiry/response, electronic data interchange, and value-added processing and associated support services to over 5,000 clients worldwide, primarily in the manufacturing, banking, telecommunications, international trade, shipping, and retail industries.

INPUT estimates that GEIS's total 1987 revenue was approximately $400 million. GEIS management confirmed that 1987 revenue increased 2% over 1986 and that 1988 revenue growth will be in the double digits.

- GEIS management has stated that over the period from 1983 to 1987 a number of factors have impacted its internally reported revenues. These factors included a change in the basis of reporting revenues for GE Consulting Services and GE Computer Services, which are now separate operations under CSO, and the divestiture of certain operations, including Software International.

- GEIS also states that over the period from 1983 to 1987 its revenues had been impacted by a de-emphasis in supplying clients with computer hardware and a restructuring of its business, replacing timesharing applications with full applications integration services and other new value-added services.

- Revenue provided to various units of General Electric Company is approximately 5% of total revenue.

In September 1988, W. James McNerney, Jr. was appointed President of GEIS, replacing A.L. Craig who has become a consultant reporting to Lawrence A. Bossidy, GE Vice Chairman and Executive Officer.

As of December 1987 GEIS had approximately 2,300 employees. The company currently has about 2,600 employees.

GEIS's primary competitors include McDonnell Douglas Information Systems Company (including Tymnet/McDonnell Douglas Network Systems), IBM, Telenet, Computer Sciences Corporation (Infonet), Automatic Data Processing (Autonet), and Reuters.

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- In the EDI and electronic mail area GEIS also competes with Sterling Software (Ordernet), MCI, Western Union, and various PTT-provided services.

Key Products and Services

INPUT estimates GEIS's 1987 revenue was derived approximately as follows:

Network-based services	85%
Network software services support	5%
Professional services	10%
	100%

GEIS offers its clients three delivery systems for its processing/network services as follows:

- The MARK III[R] Service consists of the following major elements, serving over 5,000 clients:
  - Foreground Service is the primary offering on the MARK III network. Interactive remote processing on Honeywell computers is available from most major U.S. cities. GEIS offers two libraries consisting of over 2,000 software products, a summary of which is found in Exhibit A.
    - Certain products were developed by GEIS or licensed from major software vendors. These packages are fully supported by GEIS.
  - Background Service augments interactive processing with remote batch capability on Honeywell computers. GEIS computers can be connected to in-house equipment for inter-processing.
- The MARK 3000[TM] Service is an IBM-compatible companion service to the Honeywell-based offerings. Remote batch and interactive processing on large-scale IBM computers is available. Selected applications available on this service are shown in Exhibit B. Usage is split between general business applications and engineering, simulation, and statistical analysis applications.
  - The MARK 9000[SM] Service, announced in January 1988, is a bundled offering of IBM MVS/XA operating environment processing, storage, and IBM-compatible network services.

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EXHIBIT A

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
OPERATING ENVIRONMENT - HONEYWELL DPS 90/ACOS 1000 - HONEYWELL DPS-8/70, GCOS	ELECTRONIC DATA INTERCHANGE - EDI*EXPRESS SYSTEM
PROGRAMMING LANGUAGES SUPPORTED - FORTRAN 77 - PL1 - COBOL - BASIC	ELECTRONIC MAIL - QUIK-COMM
DATA MANAGEMENT SOFTWARE - DMS III - FLEXIMIS - HISAM - SAS - DM IV - REQUEST - SYSTEM 2000 - SITE II - MARK IV - EPICS - DCM - MARDATA	ENGINEERING - CIVIL - MECHANICAL - ELECTRICAL AND ELECTRONIC
DATA BASES AVAILABLE - MAP (ECONOMETRIC DATA BASE) - CURRENCY DATA BASE SERVICE - SECURITIES DATA BASE SERVICE - VALUELINE - NEMA (NATIONAL ELECTRICAL MFG.) - DEPARTMENT OF COMMERCE (SIC) - FEDERAL TRADE COMMISSION - CITIBASE - PETROLEUM INSTITUTE - DWIGHT'S ENERGYDATA - CORPORATE FINANCIAL DATA SERVICE - BUSINESS AND FINANCIAL DATA BANK - BI/DATA - COMMODITY FUTURES - AHAM (HOME APPLIANCE MANUFACTURING) - UCLA BUSINESS FORECASTING - DOW JONES NEWS/RETRIEVAL	HUMAN RESOURCE MANAGEMENT INSURANCE - EMC*EXPRESS INVESTMENT RESOURCE MANAGEMENT INVENTORY CONTROL/ORDER SERVICE GRAPHICS AND PLOTTING LINEAR PROGRAMMING MANUFACTURING - INDUSTRIAL ENGINEERING - PLASTICS ENGINEERING - MANUFACTURING MANAGEMENT - NUMERICAL CONTROL - PRODUCTION SCHEDULING - QUALITY CONTROL MARKETING AND SALES
FINANCIAL APPLICATIONS/TOOLS - GENERAL BUSINESS ACCOUNTING - FINANCIAL ANALYSIS - FORECASTING - AUDITING	MATHEMATICS OPERATIONS RESEARCH AND MODELING PROJECT PLANNING AND MANAGEMENT SIMULATION AND MODELING
BANKING/CASH MANAGEMENT - GLOBAL RISK MANAGEMENT SYSTEMS	STATISTICAL ANALYSIS AND FORECASTING
CHEMICAL	TRANSPORTATION - MARINE MANAGEMENT - EQUIPMENT MANAGEMENT SYSTEMS - SHIPMENT TRACKING SYSTEM
COMMUNICATIONS - TELEPHONE CO. OPERATIONS & FINANCE	MISCELLANEOUS - GENIE - BUSINESSTALK
CONSTRUCTION	
DISTRIBUTION MANAGEMENT	

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EXHIBIT B

APPLICATIONS AVAILABLE ON MARK 3000 SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
OPERATING ENVIRONMENT - IBM 3081, MVS, TSO, CICS - IBM 4381, VM - IBM 9000 PROGRAMMING LANGUAGES SUPPORTED - FORTRAN 77 - COBOL - PL/1 - BASIC UTILITY SOFTWARE - LIBRARIAN - REMOTE MEDIA SERVICE - SYNCSORT PRODUCTIVITY TOOLS - ACCOLADE - DOS/OS CONVERSION PACKAGE - ISPF/PDF DATA BASE MANAGEMENT - FOCUS - IDMS - SQL/DS FINANCIAL APPLICATIONS/TOOLS - GENERAL ACCOUNTING - FINANCIAL PLANNING (FCP-EPS, IFPS) - FORECASTING (SIMPLAN) - BUDGETING AND MODELING (CPL/TACTIX) GRAPHICS - TELL-A-GRAF - DISSPLA - GDDM STATISTICS - SAS	OTHER INFORMATION MANAGEMENT - DCF - OXYCALC - MEGACALC - SCRIPT/VS - WYLBUR PROJECT MANAGEMENT - PROJACS - PROJECT/2 SCIENTIFIC AND ENGINEERING - MECHANICAL ENGINEERING AND DESIGN • NASTRAN • SUPERB • ANSYS - CIRCUIT ANALYSIS • ASTAP ORDER SERVICE - DISPATCH 3000 MANUFACTURING - PLASTICS ENGINEERING DISTRIBUTION - VEHICLE ROUTING - VSPX (VEHICLE SCHEDULING) MATHEMATICS - MPS III - MPSX/370 - SPSS PLANNING AND MODELING - BMDP (PRODUCTION SCHEDULING) - CSMP III (SIMULATION) - DYNAMO III/F (SIMULATION) - GPSS V (SIMULATION) - KETNET - MAGEN (MATRIX GENERATOR) OTHER - GE*TUTOR - GENIE

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    - The service is targeted to clients whose business requirements include multiple, distributed 9370's, remote access to one 9370, the integration of their 9370 systems with other mainframe systems, or a CICS capability. It can be used for departmental processing; development, prototyping, and conversions; in distributed configurations for store and forward processing, network switching/management; and as a component in custom systems for vertical applications, disaster recovery, and remote facilities management.

    - The MARK 9000 Service is available in Europe and the U.S. GEIS already has several contracts from the U.S., France, Italy, and the U.K. Current clients include National Westminister Bank.

- The MARK*NET™ Service, introduced in April 1984, is GEIS's value-added network based on the company's worldwide packet switching network.

  - MARK*NET is accessible from the U.S. and Canada, with approximately 600 access points in the U.S.

    - The service allows internationally distributed terminals to converse with hosts in the U.S. supporting a range of hosts and terminals communicating with asynchronous protocol and X.25 interfaces.

  - MARK*NET supports asynchronous, synchronous, SNA/SDLC, 3270 BSC, MNP, SNI, and X.25 protocols and provides 3270 emulation via SIM3278™ communications software.

GEIS services are categorized into the following application areas:

- International Banking and Financial Services.
- Worldwide Intercompany and Logistics Businesses, including Implementation Services.
- Business Systems Products.
- Value-Added Network Services.
- Consumer Information Services.

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International Banking and Financial Services. GEIS offers the following product/services which are generally used as part of a distributed processing service:

- Global Risk Management Systems, customized to client requirements, are designed to assist international banks monitor and control the risk of dealing in the international money, foreign exchange, and capital markets.

- The Money Transfer System is a microcomputer-based automated money transfer service targeted to corporate treasurers. Through a joint marketing agreement with Racal-Guardata, the Money Transfer System includes end-to-end authentication as a means of protecting the money transfer instructions.

- The Automated Confirmation Matching and Advisory Netting Service tracks and projects net settlement positions of market participants, either bilaterally, one to many, or many to many.

- FundsNet™ is an automated balance and transaction reporting service used by corporate clients to manage their global cash in an environment of differing time zones and multiple currencies.

- The Credit Application Transfer System, developed in conjunction with Computer Catalysts Inc., is a microcomputer-based electronic letter of credit system banks may install with their importer-customers as part of a bank's electronic banking services.

- The Bancor*Express™ System is a file tranfer and management system that supports the information flow between a financial institution, its corporate customers, and other counterparties.

- Effective September 1987, GEIS discontinued its automated clearinghouse transaction processing services business, including the SureNET™ Returns Service.

Worldwide Intercompany and Logistics Businesses. This segment includes network-based business applications for electronic data interchange (EDI) and industry specific systems for the trade and transportation, manufacturing, and retail industries.

- The company's electronic data interchange services allow trading partners to exchange data in standard business-document formats electronically.

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- The EDI*EXPRESS™ System, introduced in November 1985, provides the standards-based intercompany exchange of data for business documents related to the purchase order cycle, including orders, order acknowledgements, invoices, manifests, and freight bills, through host computer systems or microcomputers via GEIS's MARK III Service.

- The EDI*PC™ System, introduced in November 1985, is a software package that allows IBM and compatible microcomputers to operate as standalone workstations or as a front-end to an in-house computer for EDI.

- The EDI*T™ System, introduced in December 1987, enables trading partners to transmit and receive EDI documents in a standard format to and from the EDI*EXPRESS System. It translates a predefined input file generated by a trading partner's in-house applications into public EDI standard formats such as ANSI X.12, UCS, or TDCC MOTOR, AIR, RAIL, or OCEAN. The EDI*T System operates in various hardware environments, including IBM MVS, IBM DOS, Burroughs, Tandem, and Honeywell/NEC, and licenses for $9,500, with an annual subscription services fee of $1,200 after the first year.

- The EDI*CENTRAL™ System, introduced in July 1988, is a mainframe software package that allows an EDI user to translate EDI-formatted documents to and from the formats used by its internal business system applications, even when those systems are operating on geographically dispersed remote computing facilities. The system licenses for $20,000 for the first copy, with additional copies per company at $12,000 each. The annual subscription service fee is $2,400 after the first year.

- The DESIGN*EXPRESS™ System, announced in December 1987, allows engineering/manufacturing design data to be processed and transmitted electronically in several types of document formats. This product is being resold by Dallas-based Microdynamics to the apparel manufacturing industry.

- The EMC*EXPRESS™ System, introduced in August 1985, enables doctors and hospitals to electronically submit insurance claims to 50 insurance companies, and to Medicare and Medicaid programs.

  - In April 1988 GEIS introduced COLLECT*EXPRESS, a microcomputer-based software enhancement to EMC*EXPRESS that identifies overdue accounts, assembles

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them in a batch file for submission through GEIS to Transword Systems, Inc. (Rohnert Park, CA), a bill collection agency that issues dunning letters.

- GEIS also supports several private and industry association networks, including Catspeed (Caterpillar Tractor Company's private EDI implementation), Haggar Apparel Company's HOP (Haggar Order Processing), LeviLink (Levi-Strauss), PetroEx (the Petroleum Data Exchange System), The Poand Transnet (operated by the Motor Equipment Manufacturers Association, Englewood Cliffs, NJ).

- Other EDI-related activities include the following:

  - Working with Baxter Travenol (Deerfield, IL), GEIS is expanding the scope of that company's ASAP Express private EDI purchasing clearinghouse system for hospitals.

  - GEIS Ltd. has joined with STC International Computers Ltd. (formerly ICL) to form International Network Services Ltd.(INS), offering EDI services in the U.K.. In February 1988, INS launched its international "Bridge", joining the INS U.K. EDI services to the EDI service provided by GEIS.

  - GEIS was selected by CEFIC, the European Council of Chemical Manufacturers' Federations, as the single clearinghouse to provide EDI services to the CEFIC EDI trial for the European Chemical Industry.

  - With Finland's Nokia Information Network Services, the company will establish a processing center in 1988 for domestic and international EDI, licensing its EDI software to the partner.

  - GEIS and Swedish software firm Transtema are integrating their systems and services, targeting the freight and shipping industries.

  - In May 1988 GEIS was selected by the Port Authority of New York & New Jersey to provide the EDI*EXPRESS System to the Port's Automated Cargo Expediting System.

- GEIS has EDI-related alliances with various third parties to sell its services along with their software and equipment. The company currently has agreements with:

  - ACS Network Systems (Concord, CA) for sales to the apparel industry.

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- American Business Computer (Farmington Hills, MI) for the automotive industry.
- Can/Am Tech (Hamilton, Ontario) for sales and support in the metals industry.
- McCormack & Dodge (Natick, MA) for software integration.
- Microdynamics (Dallas, TX) for DESIGN*EXPRESS in the apparel industry.
- Management Science America (Atlanta, GA) for general joint marketing.
- Supply-Tech (Southfield, MI) for sales to the automotive industry.

- The TRADE*EXPRESS System is no longer actively marketed.
- GEIS also provides EDI implementation services, including training, conducting trading partner conferences, follow-up conferences with technical support, developing specialized test procedures, customizing documentation, and providing overall project management.

The Business Systems Products Unit provides products and services for office automation and communications that link geographically dispersed operations.

- The QUIK-COMM™ System is a global electronic mailbox service that is designed to integrate multi-site, multi-national business communications for public and private mail systems. The system accommodates eight languages in addition to English.
- Personal Computer Mailbox is a microcomputer-based integrated application program designed to provide a user with the tools necessary to write, send, receive, and file QUIK-COMM messages.
- Bulletin Board provides electronic information sharing with large public and private audiences via one-way and two-way electronic communications.
- Telex Access permits QUIK-COMM users to send messages to and receive messages from Telex addresses during a QUIK-COMM session.

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- QUIK-GRAM™ Service enables a QUIK-COMM user to deliver electronically produced paper mail messages to virtually anyone with a U.S postal address.

- QUIK-COMM to IBM PROFS Service is an interface capability that allows PROFS users to send notes and final form documents to QUIK-COMM users and receive messages from QUIK-COMM users.

- QUIK-COMM to IBM DISOSS Service is an interface capability that allows DISOSS users to send final form documents to QUIK-COMM users and receive messages from QUIK-COMM users.

- QUIK-COMM to DEC All-in-1 Service is an interface capability that allows All-in-1 users to send final form messages to QUIK-COMM users and receive messages from QUIK-COMM users.

- GEIS is developing an interface to Wang's OFFICE system.

- BusinessTalk™ is a communications capability designed to process, distribute, and retrieve information for members of a geographically dispersed business community via the MARK III Foreground Service through an Apple Macintosh or IBM PC-compatible computer. BusinessTalk combines the functions of textual data bases with a key word search, bulletin boards, electronic mail, and graphics.

- In December 1987 GEIS completed implementation of a customized, two-way electronic mail system for Chrysler Motors' U.S. dealers using QUIK-COMM, PROFS-to-QUIK-COMM, and Personal Computer Mailbox application programs.

GEnie™ (GE Network for Information Exchange) is an electronic consumer information service for microcomputer end users.

- GEnie permits access to a variety of services, including news and information, financial, travel, shopping, computer games and references, electronic mail, and real-time conferences.

- Commercialized in October 1985, GEnie now has over 118,000 individual subscribers throughout the U.S., and in Canada and Japan.

Other network-related announcements include the following:

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- In January 1987, Distribu*Net made available its on-line bidding and purchasing system for generic drugs on GEIS's network. The system provides information on drug availability, prices, and credit terms to pharmaceutical manufacturers, wholesalers, retailers, hospitals, and other ambulatory health care providers.

- In March 1987, GEIS announced a program that enables value-added resellers, software houses, and other computer companies to become Value Added $ervice Providers (VA$Ps) of certain services available on GEIS's teleprocessing network, including QUIK-COMM, BusinessTalk, EDI systems, and financial, sales, and marketing network-based applications.

- In July 1987, GEIS announced an agreement with ISI-Dentsu for the marketing of GEIS's teleprocessing services by ISI-Dentsu to Japanese companies operating in the U.S. in financial services, automotive manufacturing, electrical/electronics, machinery, and trade.

  - As a result of the agreement, ISI-Dentsu formed a wholly owned subsidiary, ISI-Dentsu of America, which is based at GEIS's Rockville (MD) headquarters.

  - ISI-Dentsu has been distributing GEIS's teleprocessing services in Japan since 1971.

- In November 1987, GEIS announced the availability of the National Online Regulatory Access (NORA) data base of full text of many documents cycled through the Common Carrier Bureau of the Federal Communications Commission.

- In December 1987, NEC Corporation announced the opening of Japan's first international value-added network service, which is a linking of NEC's network in Japan and GEIS's worldwide teleprocessing network.

- In June 1988, GEIS announced the availability of Packet/PC Inc.'s Packet/3270 SNA micro-mainframe link on its network.

- In July 1988, GEIS announced the availability of Managed Network Services (MNS), a service providing network and session management of client information and value-added communications systems. MNS encompasses network connectivity, local end-user support, equipment provision and maintenance, systems design and integration, applications integration, and value-added applications.

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Implementation Services provided by GEIS include systems development and consulting, training, and documentation services.

Industry Markets

GEIS's 1987 revenue was derived approximately as follows:

Banking	40%
Manufacturing	32%
Telecommunications	10%
Transportation	10%
Retail	5%
Other	3%
	100%

GEIS currently has a client base of over 5,000 corporations and trade associations, including nearly 64% of the Fortune 500 companies.

Geographic Markets

Approximately 50% of GEIS's 1987 revenue was derived from the U.S. and 50% from international sources.

GEIS products and services are offered through over 60 U.S. offices and offices in 30 countries, with global support and access provided by distributors, affiliates, or private data networks in 40 additional countries.

- U.S. regional offices are located in New York City, Atlanta, Chicago, and San Francisco.
- International offices are located in Australia, Austria, Belgium, Canada, France, Germany, Hong Kong, Ireland, Italy, The Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, and the U.K.

Software Development Centers are located in Rockville (MD), Nashville (TN), Berkeley (CA), and Dublin (Ireland).

GEIS's network provides clients with local dial-up services in 750 cities in more than 30 countries worldwide and is available 24 hours a day, seven days a week, 365 days a year. Coverage is extended to 70 countries by using network gateways to several public data networks.

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Computer Hardware and Software

The GEIS network uses over 1,000 processing and communications computers. Over 400 of these are Honeywell PMSDs, used to handle communications. Large-scale IBM and Honeywell processors are concentrated in supercenters in Rockville, Cleveland, and Amsterdam. These consist of:

- Thirteen Honeywell DPS 90/ACOS 1000s and seven Honeywell DPS-8/70s operating under GEIS proprietary software for interactive processing, and 15 Honeywell DPS-8/70s running under GCOS for background remote batch processing.
- One IBM 3081, one IBM 3090, and one IBM 4341 for interactive and remote batch processing on the MARK 3000 Service.

GEIS's teleprocessing network handles over a quarter million user sessions per day, transmitting over 400 million characters of data in and out of the system per hour.

The network consists of satellite links, microwave links, undersea cables, and 350,000 miles of land lines.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program

June 1998

GEIS – Outsourcing Services

Contact Information for U.S. Outsourcing Services:
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Phone: **301-340-4521**
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Internet: **www.geis.com**

The following profile outlines the services and support offered by GEIS for Outsourcing Services.

General Background Information

GEIS was founded in 1965.
Americas Headquarters: Rockville, MD;
Europe Headquarters: Paris, France;
Asia/Pacific Headquarters: Hong Kong

Main activities

Global networked solutions including, electronic commerce, EDI, and messaging services, Internet and Intranet services and a full suite of applications that help streamline supply chain management processes.

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Employee numbers

Exhibit 1

GEIS Employee numbers

	Total
World-wide	2,600
US	1,600

Source: GEIS

Exhibit 2

Number of Outsourcing Contracts

	Total
World-wide	65
US	62

Source: GEIS

Outsourcing Services

Beginning in 1988, GEIS initially offered EDI applications outsourcing to all of the GE businesses. They have continued to expand the offering to commercial clients. They are moving the offering to a global level and have expanded to Europe in 1997.

GEIS' Enterprise Commerce Outsourcing services are tailored to help all types of businesses, whether they are just starting a new EDI program or want to expand an existing program. GEIS' Enterprise Commerce Outsourcing services will provide all the components a business needs to implement EDI with any of their trading partners. It's a full service program that includes project management, daily EDI processing, mapping/ applications development, and trading partner implementation. GEIS' experienced professionals in electronic commerce can help get a business program in place and allow an organization to focus their resources on their own core competencies.

GEIS has the following key partnerships:
Oracle, SAP, Netscape, Owens & Minor, TPN Register, Hewlett-Packard

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Service Offerings

Exhibit 3

GEIS' Outsourcing Services Competencies

Service Type	Brief description of service
Wide-area network management	GEIS' Global Services is a full-service global Intranet and Extranet product line, and Managed Network Services (MNS) which use the GE global network to provide a Consolidated world-wide network for connecting an organization's sites around the globe. Connections are supported to the MNS network with leased circuits, frame relay, ISDN, Async and Bisync dial. Protocol options include TCP/IP, PPP, SNA, and proprietary protocols such as Novell IPX and DecNet.
Application Management	
- Application maintenance	GEIS' Enterprise Commerce Outsourcing services, can manage and implement GEIS' gateway application products, such as Enterprise. The service includes monitoring, management, implementation, and on-going support of these applications.
- Application and system development	GEIS' Enterprise Commerce System Integration services, can design and develop solutions to solve today's complex business problems and integrate these solutions with GEIS' gateway application products.
Business Function Outsourcing	GEIS' Enterprise Commerce Outsourcing services offer a complete full service solution to businesses that want to have their EC program business function managed. The service is designed to meet the needs of customers who may already have an existing EDI program or may want to start one. GEIS' Enterprise Commerce Outsourcing service includes all the functions needed to run a complete EC program, from project management, daily EDI processing and operations, EDI mapping/application development, to trading partner implementation.

Vertical Market Competency

GEIS provide outsourcing services tailored for the following vertical markets:

- Healthcare
- Transportation
- High-Tech
- Manufacturing
- Banking
- Government

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- Telecommunications
- Retail
- Utilities

Exhibit 4

Vertical Market	Sub-segment	% of Contracts
Retail	Food, non-food Wholesale Distribution Leisure Travel Agents Mail Order	14%
Communications	Telecommunications Media	3.5%
Transport	Airlines Rail, etc.	14%
Discrete Manufacturing	Automotive Aerospace Electrical & Electronic Mechanical Engineering, etc.	All Manufacturing total = 43%
Process Manufacturing	Food and Drink Pharmaceuticals Chemicals, etc.	See above

Source: GEIS

Strategic Positioning

Special Strengths

GEIS' Electronic Commerce Service Center is the most experienced provider of EDI outsourcing services, with over nine years of experience in the EC outsourcing business, and has the world's largest electronic commerce trading community of over 40,000 trading partners. Based on their expertise, customers can rely on GEIS to implement and manage their EDI business functions.

Competition

GEIS considers its main competitors to be:

- Kleinschmidt
- Sterling
- St. Paul Software
- Debis (GER)

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- Siemens(GER)
- Sligos (FR)
- Origin(NL)

Objectives

GEIS is currently expanding its Electronic Commerce Service Center globally. For instance, they will be expanding to other regions such as Asia/Pacific in 1998, in countries such as Hong Kong, and the Philippines.

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COMPANY PROFILE

GENERAL ELECTRIC INFORMATION SERVICES COMPANY
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

Anthony L. Craig, President
Division of General Electric Company, Communications and Services Organization
Total Employees: 4,200 (12/85)
Total Revenue, Fiscal Year End 12/31/85: $680,000,000*
Noncaptive Revenue: $580,000,000*

THE COMPANY

- General Electric Information Services Company (GEISCO) was formed in 1979 to consolidate General Electric Company's (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S. The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1982, when GE purchased Honeywell's interest for approximately $70 million. GEISCO now operates as a division of GE.

  - During mid-1985 GEISCO announced a restructuring of its organization aimed at strengthening its competitive position through increased concentration on high growth specialized businesses, including office communications, automated clearinghouse services, supplier and dealer systems, international trade, and a portfolio of electronic data interchange services.

  - Effective October 1, 1986, GEISCO began reporting to GE's newly created Communications and Services Organization (CSO) which was formed to meld certain GE operations with former RCA units. Two subsidiaries that were formerly part of GEISCO (Software International Corporation and GE Consulting Services Corporation) now operate as separate units under CSO.

- GEISCO currently provides remote computing, inquiry/response, electronic data interchange and value-added network processing and associated support services to over 5,000 clients worldwide primarily in the manufacturing, banking, telecommunications, international trade, shipping, retail, and health care industries.

- INPUT estimates that GEISCO's total 1985 revenue was approximately $680 million, a decrease of 3% from estimated 1984 revenue of $700 million.

*INPUT estimate

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- 1985 noncaptive revenue is estimated at $580 million compared to $600 million in 1984.

- A summary of GEISCO's divestiture activity since 1983 follows:

  - During 1984 GEISCO sold the oil and gas industry processing and professional services operations it had originally acquired in 1981 with the purchase of Energy Enterprises of Denver, Inc. This business line was sold to Energy Enterprises.

  - Effective September 1985, GEISCO sold Network Consultants, Inc. of Chicago to MTech. Terms of the sale were not disclosed. Network Consultants, a GEISCO subsidiary specializing in wire transfer and cash management software products and consulting services to the banking industry, had approximately 50 employees at the time of the sale.

  - During 1985 GEISCO sold its Banking Systems, Inc. subsidiary to MTech. Terms of the sale were not disclosed. Banking Systems provided retail banking software products for transaction processing.

  - In May 1985 GEISCO sold its MIMS non-procedural language and manufacturing application software product line to private investors. This business now operates as Mitrol Inc., a private company based in Woburn (MA).

- As of December 1985, GEISCO had approximately 4,200 employees.

  - In September 1986, prior to the formation of GE's Communications and Software Organization, GEISCO had 4,244 employees, segmented as follows:

Network Services	2,585
GE Consulting Services	1,273
Software International	386
	4,244

  - As a result of the reorganization, GEISCO currently has approximately 2,600 employees.

- GEISCO's primary competitors, by service/product area, include the following:

  - Remote computing services: Boeing Computer Services, Control Data Corporation, McDonnell Douglas Information Systems Group, and IBM.

  - Network/telecommunications services: Telenet Communications Company, Tymnet/McDonnell Douglas Network Systems, Computer Sciences Corporation (Infonet), and Automatic Data Processing (Autonet).

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KEY PRODUCTS AND SERVICES

- INPUT estimates GEISCO's 1985 noncaptive revenue was generated approximately as follows:

Processing services	70%
Professional services	20
Software products	10
	100%

  - Approximately 10% of revenue was derived from GEISCO's value-added network services.

  - As a result of the reorganization in October 1986, GEISCO's revenue is now derived from its various processing/network services.

- GEISCO offers its clients three delivery systems for its processing services as follows:

  - The MARK III® Service consists of the following major elements, serving over 6,000 clients:

    . Foreground Service is the primary offering on the MARK III network. Interactive remote processing on Honeywell computers is available from most major U.S. cities. GEISCO offers two libraries consisting of over 2,000 software products, a summary of which is found in Exhibit A.

      - Certain products were developed by GEISCO or licensed from major software vendors. These packages are fully supported by GEISCO.

      - Several hundred products from independent software authors (often users) are available on-line through Network Software Services (NSS). These packages are offered under royalty agreements and are supported by the author.

    . Background Service augments interactive processing with remote batch capability on Honeywell computers. GEISCO computers can be connected to in-house equipment for interprocessing.

  - The MARK 3000 Service is an IBM-compatible companion service to the Honeywell-based offerings. Remote batch and interactive processing on large-scale IBM computers is available. Selected applications available on this service are shown in Exhibit B. Usage is split between general business applications and engineering, simulation, and statistical analysis applications.

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EXHIBIT A

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME

- OPERATING EVNIRONMENT
  - HONEYWELL DPS 90/ACOS 1000
  - HONEYWELL DPS - 8/70, GCOS
- PROGRAMMING LANGUAGES SUPPORTED
  - FORTRAN 77
  - COBOL
  - PL/1
  - BASIC
- DATA MANAGEMENT SOFTWARE
  - DMS III
  - HISAM
  - DM IV
  - SYSTEM 2000
  - MARK IV
  - DCM
  - FLEXIMIS
  - SAS
  - REQUEST
  - SITE II
  - EPICS
  - MARDATA
- DATA BASES AVAILABLE
  - MAP (ECONOMETRIC DATA BASE)
  - CURRENCY DATA BASE SERVICE
  - SECURITIES DATA BASE SERVICE
  - VALUELINE
  - NEMA (NATIONAL ELECTRICAL MFG.
  - DEPARTMENT OF COMMERCE (SIC)
  - FEDERAL TRADE COMMISSION
  - CITIBASE
  - PETROLEUM INSTITUTE
  - DWIGHT'S ENERGYDATA
  - CORPORATE FINANCIAL DATA SERVICE
  - BUSINESS AND FINANCIAL DATA BANK
  - BI/DATA
  - COMMODITY FUTURES
  - AHAM (HOME APPLIANCE MANUFACTURING)
  - UCLA BUSINESS FORECASTING
  - DOW JONES NEWS/RETRIEVAL
- FINANCIAL APPLICATIONS/TOOLS
  - GENERAL BUSINESS ACCOUNTING
  - FINANCIAL ANALYSIS
  - FORECASTING
  - AUDITING
- BANKING/CASH MANAGEMENT
  - SURENET
  - GLOBAL LIMITS SYSTEM
- CHEMICAL
- COMMUNICATIONS
  - TELEPHONE CO. OPERATIONS & FINANCE
- CONSTRUCTION
- DISTRIBUTION MANAGEMENT
- ELECTRONIC DATA INTERCHANGE
  - EDI*EXPRESS
- ELECTRONIC MAIL
  - QUIK-COMM
- ENGINEERING
  - CIVIL
  - MECHANICAL
  - ELECTRICAL AND ELECTRONIC
- HUMAN RESOURCE MANAGEMENT

APPLICATION AREA/PRODUCT NAME

- INSURANCE
  - EMC*EXPRESS
- INTERNATIONAL TRADE
  - TRADE*EXPRESS
- INVESTMENT RESOURCE MANAGEMENT
- INVENTORY CONTROL/ORDER SERVICE
- GRAPHICS AND PLOTTING
- LINEAR PROGRAMMING
- MANUFACTURING
  - INDUSTRIAL ENGINEERING
  - PLASTICS ENGINEERING
  - MANUFACTURING MANAGEMENT
  - NUMERICAL CONTROL
  - PRODUCTION SCHEDULING
  - QUALITY CONTROL
- MARKETING AND SALES
- MATHEMATICS
- MEDICAL AND HEALTH CARE
  - EMC*EXPRESS
- OPERATIONS RESEARCH AND MODELING
- PROJECT PLANNING AND MANAGEMENT
- RETAIL
  - POINT OF SALE (POS) SERVICES
- SIMULATION AND MODELING
- STATISTICAL ANALYSIS AND FORECASTING
- TRANSPORTATION
  - MARINE MANAGEMENT
  - TRADE*EXPRESS
- MISCELLANEOUS
  - GENIE
  - SOFTRAN
  - DEALERTALK

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EXHIBIT B

APPLICATIONS AVAILABLE ON MARK 3000 SERVICE

APPLICATION AREA/PRODUCT NAME

- OPERATING ENVIRONMENT
  - IBM 3081, MVS, TSO, CICS
  - IBM 4381, VM
  - IBM 3090
- PROGRAMMING LANGUAGES SUPPORTED
  - FORTRAN 77
  - COBOL
  - PL/1
  - BASIC
- UTILITY SOFTWARE
  - LIBRARIAN
  - REMOTE MEDIA SERVICE
  - SYNCSORT
- PRODUCTIVITY TOOLS
  - ACCOLADE
  - DOS/OS CONVERSION PACKAGE
  - ISPF/PDF
- DATA BASE MANAGEMENT
  - FOCUS
  - IDMS
  - SQL/DS
- FINANCIAL APPLICATIONS/TOOLS
  - GENERAL ACCOUNTING
  - FINANCIAL PLANNING (FCP-EPS, IFPS)
  - FORECASTING (SIMPLAN)
  - BUDGETING AND MODELING (CPL/TACTIX)
- GRAPHICS
  - TELL-A-GRAF
  - DISSPL
  - GDDM
- STATISTICS
  - SAS

APPLICATION AREA/PRODUCT NAME

- OTHER INFORMATION MANAGEMENT
  - DCF
  - OXYCALC
  - MEGACALE
  - SCRIPT/VS
  - WYLBUR
- PROJECT MANAGEMENT
  - PROJACS
  - PROJECT/2
- SCIENTIFIC AND ENGINEERING
  - MECHANICAL ENGINEERING AND DESIGN
    - NASTRAN
    - SUPERB
    - ANSYS
  - CIRCUIT ANALYSIS
    - ASTAP
- ORDER SERVICE
  - DISPATCH 3000
- MANUFACTURING
  - PLASTICS ENGINEERING
- DISTRIBUTION
  - VEHICLE ROUTING
  - VSPX (VEHICLE SCHEDULING)
- MATHEMATICS
  - MPS III
  - MPSX/370
  - SPSS
- PLANNING AND MODELING
  - BMDP (PRODUCTION SCHEDULING)
  - CSMP III (SIMULATION)
  - DYNAMO III/F (SIMULATION)
  - GPSS V (SIMULATION)
  - KETNET
  - MAGEN (MATRIX GENERATOR)
- OTHER
  - GE*TUTOR

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- The MARK*NET™ Service, introduced in April 1984, is GEISCO's value-added network (VAN) based on the company's worldwide packet switching network.
  - MARK*NET is accessible from nearly 60 countries, with 600 access points in the U.S., representing the world's largest commercial teleprocessing network.
  - MARK*NET supports asynchronous, synchronous, and X.25 protocols.
  - During 1985 GEISCO introduced a MARK*NET 3270 Bisynchronous Service. During 1986 the company added support for 3270 SNA/SDLC protocols through MARK*NET to MARK 3000 services.

- Significant network-based services offered by GEISCO include the following:
  - In March 1985 GEISCO introduced DealerTalk™, a system for linking an organization's headquarters with independent dealerships via the MARK III Foreground Service through an Apple Macintosh microcomputer.
    - The primary use of the service is to allow a company to quickly notify its regional offices or stores of price changes, inventory levels, new contracts, and technical documents.
    - DealerTalk basic modules include an electronic mailbox service, bulletin boards, and textual data bases.
  - The QUIK-COMM™ System is a global electronic mailbox service with the following capabilities:
    - Integration for public and private mail systems.
    - Personal Computer Mailbox, a user interface for IBM microcomputers.
    - Bulletin Board for electronic information sharing.
    - Telex Access provides access from the QUIK-COMM System to 1.5 million Telex addresses worldwide.
    - QUIK-GRAM™ Service provides hard copy delivery of electronically produced messages.
    - PROFS (IBM's Professional Office System) connection to in-house electronic mail systems and QUIK-COMM.

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- Focused business systems that provide computer-to-computer transmission of standard-format business documents are available in the following areas:

  . Electronic data interchange (EDI): The EDI*EXPRESS[T.M.] System, introduced in November 1985, provides the standards-based intercompany electronic exchange of invoices, purchase orders, freight bills of lading, and other documents through host computer systems or personal computers via GEISCO's MARK III Service.

    - Capabilities include electronic mailboxing, compliance checking, optional access modes, format translation, special editing, transaction billing, and status reports.

    - The EDI*PC[T.M.] System, introduced in November 1985, is software that allows IBM and compatible microcomputers to operate as standalone workstations or as a front-end to an in-house host computer for EDI.

    - In April 1986 GEISCO announced that it had been endorsed as a preferred EDI vendor by six North American associations in the paper/printing/publishing industry.

    - On September 11, 1986, GEISCO announced that it had selected American Business Computer (ABC) of Farmington Hills (MI) as its first EDI sales agent. ABC will market and install GEISCO's EDI*EXPRESS System to small and medium volume users of ABC's Electronic Document Exchange software product for the automotive industry.

    - On September 22, 1986, GEISCO announced it had been selected by Levi Strauss & Co. as its EDI service provider.

    - On September 23, 1986, GEISCO announced that it had selected Apparel Computer Systems (ACS) as its exclusive EDI sales agent for the sale, implementation, and support of its EDI*EXPRESS System for the apparel manufacturing industry.

  . International Trade: The TRADE*EXPRESS[T.M.] System, introduced in June 1986, is a service available via MARK III for creating, processing, and distributing international trade documents among exporters, freight forwarders, carriers, banks, custom house brokers, and others involved in the international trade process.

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- Optional components include document processing, EDI, translation services, electronic mail, and teleprocessing management.

- TRADE*EXPRESS workstation software, priced at $150 per copy, runs on IBM microcomputers and allows users to create letters, documents, or data files locally before accessing GEISCO's network to send the information.

- First National Bank of Chicago is using GEISCO's network for processing and transmitting export documentation data as part of its Accelerated Trade Payments Service.

. Health Care Services: The EMC*EXPRESS$^{T.M.}$ System, introduced in August 1985, electronically collects and distributes medical claims via GEISCO's MARK III Service.

- The system accepts claims sent electronically from the personal computers of physicians or hospitals, sorts the claims by company, and routes them overnight to participating insurance carriers.

- In August 1985 GEISCO announced it had been selected by the Natinal Electronic Information Corporation (N.E.I.C.) as the new processor of N.E.I.C.'s electronic health care claims distribution system.

- Payment services provided by GEISCO include the following:

. Since mid-1985 GEISCO has been providing automated clearinghouse (ACH) transaction processing services for the Calwestern Automated Clearing House Association (CACHA). Each participating CACHA institution transmits data on its transactions electronically via the MARK 3000 Service to GEISCO's data center in Rockville. GEISCO's calculations of each institution's balance is then used to clear accounts through the Federal Reserve.

. In October 1985 GEISCO announced the availability of its SureNET$^{T.M.}$ Returns Service for financial institutions to use in automating their ACH returns and notifications of change processing. Data can be entered on an IBM or compatible microcomputer and transmitted via the MARK III Service. GEISCO delivers submitted returns to the Federal Reserve for distribution back to the originator's daily. Daily and monthly reports are also provided.

- In October 1985 GEISCO introduced GEnie$^{T.M.}$ (General Electric Network for Information Exchange), a domestic network service for personal computer users that permits access to a variety of entertain-

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ment, information and software exchanges, communications, and shopping services during non-prime time hours for a low cost. The service currently has more than 23,000 paid subscribers.

- Point-of-Sale (POS) services, introduced in May 1986, are available via GEISCO's MARK III Service. POS services allow retail merchants access to credit card authorizations, proprietary credit card processing, draft capture services, and retail information services.

- Other network-related announcements include the following:

  - The SOFTRAN$^{T.M.}$ Service, introduced in November 1984, is an electronic software management and distribution system to coordinate and control the distribution of personal computer software within an organization. The service consists of an administrator module on the MARK III Service and an end-user module (priced at $100) for each personal computer.

  - In July 1985 GEISCO announced its distribution agreement with NEC Corporation which establishes NEC as a distributor of GEISCO's teleprocessing services in Japan. NEC's value-added network, NEC-NET has been interconnected with GEISCO's network to provide access to applications such as international order entry, international cash management, and international mailbox services.

  - In November 1985 GEISCO announced GE*TUTOR$^{T.M.}$, a computer-based training service available through the MARK 3000 Service. Course topics include data communications, data base management systems, programming languages, application tools, operating systems, and end-user computing.

  - In December 1985 GEISCO announced the signing of Crossland Systems Corporation as a Value Added Service Provider for its teleprocessing services. Crossland will provide value-added applications in the areas of manufacturing, distribution, and construction.

  - In March 1985 GEISCO announced it had signed agreements with three International Record Carriers to provide expanded international access capabilities for all of its communications and processing services. The agreements, signed with ITT Worldcom, RCA Globcom (now part of GE's Communications and Services Organization), and TRT Telecommunications, make MARK*NET, MARK III, and MARK 3000 accessible from 59 countries.

  - In July 1986 GEISCO announced the establishment of a Software Development Center in Dublin, Ireland. Software to be developed for network access will target banking and financial services, manufacturing and distribution, office communications, and businesses with international trading, distribution, and marketing requirements.

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- In September 1986 GEISCO and Dentsu announced that their joint venture company, Information Services International-Dentsu (ISI-D), will be providing an IBM-based processing service called D*Net from ISI-D's own IBM 3083 computer center in Tokyo.

- In September 1986 GEISCO announced the availability of the Dow Jones News/Retrieval service on its teleprocessing network.

- GEISCO offers full network support services to its clients.

  - Professional services offered to all GEISCO clients include technical support for systems development, integration of major applications, programming, and planning for efficient network usage.

  - Training courses are offered by GEISCO, its affiliates, and Network Software Services authors. The courses are provided at the International Training Center in Rockville, through worldwide remote sales offices, and at client sites. Training is also available to non-clients.

- Two business units that were formerly part of GEISCO but now report to GE's Communications and Services Organization, contributed an estimated 25% to GEISCO's 1985 noncaptive revenue. These businesses include:

  - Software International Corporation, a provider of financial/accounting and human resources application software products.

  - General Electric Consulting Services Corporation, a provider of professional services.

INDUSTRY MARKETS

- GEISCO's 1985 noncaptive revenue was derived primarily from clients in manufacturing, banking and finance, retail/distribution, transportation; and health care.

GEOGRAPHIC MARKETS

- GEISCO products and services are offered through over 60 sales offices worldwide. U.S. regional offices located in New York City, Atlanta, Chicago, and San Francisco.

- Software Development Centers are located in Rockville (MD), Nashville (TN), Oyster Point and Berkeley (CA), and Dublin, Ireland.

- GEISCO's network provides clients with local dial-up services in 750 cities worldwide and is available 24 hours a day, seven days a week, 365 days a year. Coverage is extended to 60 countries by using network gateways to several Public Data Networks.

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COMPUTER HARDWARE AND SOFTWARE

- The GEISCO network uses approximately 1,000 processing and communications computers. Over 400 of these are Honeywell PMSDs, used to handle communications. Large-scale IBM and Honeywell processors are concentrated in supercenters in Cleveland, Rockville, and Amsterdam. These consist of:
  - Eleven Honeywell DPS 90/ACOS 1000s and seven Honeywell DPS-8/70s operating under GEISCO proprietary software for interactive processing and 15 Honeywell DPS-8/70s running under GCOS for background remote batch processing.
  - Two IBM 3081s, one IBM 3090, and one IBM 4381 for interactive and remote batch processing on the MARK 3000 service.
- GEISCO's teleprocessing network handles over a quarter million user sessions per day transmitting over 300 million characters of data in and out of the system per hour.
- The network consists of satellite links, microwave links, undersea cables, and 350,000 miles of land lines.

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GENERAL ELECTRIC INFORMATION SERVICES COMPANY
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

Walter W. Williams, Chairman and President
Wholly owned subsidiary of General Electric Company
Total Employees: 5,500
Total Revenue, Fiscal Year End 12/31/82: $645,000,000*
Noncaptive Revenue: $550,000,000*

THE COMPANY

- General Electric Information Services Company (GEISCO) was formed in 1979 to consolidate General Electric Company's (GE) MARK III worldwide interactive and remote batch processing services, originally introduced in 1965 under the MARK I name as the first interactive processing service commercially available in the U.S. The organization unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell. Honeywell retained a 16% interest in GEISCO until January 1982, when GE purchased Honeywell's interest for approximately $70 million. GEISCO now operates as a wholly owned GE subsidiary.

- GEISCO provides interactive, remote batch, and inquiry/response processing services, professional services, applications software products, and turnkey systems to over 6,000 clients worldwide, primarily in banking and finance, manufacturing, energy/petroleum, order service, general business, accounting, decision support, and management reporting.

- INPUT estimates that GEISCO's total 1982 revenue was $645 million, an increase of 16% over estimated 1981 revenue of $545 million.

  - 1982 noncaptive revenue is estimated at $550 million, a 16% increase over $475 million in 1981. Approximately $95 million of 1982 revenue was captive to the parent.

- A summary of GEISCO's acquisition and divestiture activity since 1981 follows:

  - In January 1981 GEISCO acquired Lambda Technology, Inc., a professional services firm with clients primarily in the banking and finance and manufacturing industries. Lambda shareholders received $13 million worth of GE common stock and will receive an additional $13 million in stock over a four-year period if performance objectives are met.

*INPUT estimate

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  - The company had estimated 1980 revenue of $27 million and approximately 625 employees at the time of acquisition.

  - Lambda operated as a GEISCO subsidiary under the name LTI Consulting Services Inc. until being merged into GEISCO's General Electric Professional Services Company subsidiary in March 1983.

- Banking Systems Inc. (BSI), headquartered in Dallas, had 42 employees when it was acquired in September 1981. Total purchase price for the company will range between $5 and $10 million, based on the achievement of performance criteria over a three- to five-year period. BSI provides on-line transaction processing software for banks and operates as a GEISCO subsidiary.

- GEISCO also acquired Energy Enterprises of Denver, Inc. in September 1981 for $5 to $10 million based on performance criteria. At the time of acquisition, Energy Enterprises had 54 employees and provided remote computing and related professional services to approximately 250 clients in the oil and gas industry. The company was merged into GEISCO's processing business.

- Software International Corporation of Andover (MA) was acquired in October 1981 for $27 to $48 million based on performance criteria. Software International operates as a GEISCO subsidiary and provides software packages primarily for accounting and financial applications. The company had approximately 325 employees and revenue of $24 million for its fiscal year ended September 1981.

  - In April 1982 Software International acquired Software Resources, Inc. (SRI) headquartered in Salt Lake City. Terms of the acquisition were not disclosed. SRI, with 17 employees, provides support services for Software International financial products used on Univac computers.

- In August 1982 Network Consultants, Inc., a Chicago-based firm marketing software products and professional services to the banking and finance industry, was acquired for $3.5 million cash with an additional $3.2 million payable based on performance over a one-year period. With 65 employees at the time of acquisition, Network Consultants operates as a subsidiary of GEISCO.

- Also in August 1982 GEISCO sold its Genigraphics business unit to the unit's management and two New York City-based venture capital firms, Welsh, Carson, Anderson and Stowe and J.H. Whitney & Company. The unit, with approximately 400 employees and estimated annual revenue of $40 million, will continue its operation as Genigraphics Corporation from its Syracuse headquarters and all 20 existing service center locations. The company processes computer generated slides from graphics CRT terminals and provides turnkey systems.

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- GEISCO sold its interest in Enercom Inc. in October 1982 to Equifax Inc. Enercom's software product for utility companies is still available as an application on GEISCO's network.

- In February 1982 GE consolidated its Telecommunications and Information Processing Operations (TIPO), the GE in-house telecommunications and data processing business headquartered in Schenectady (NY), with GEISCO.

  - The consolidation will provide GEISCO with the necessary resources to supply its customers with new services in the areas of networking, training, and turnkey systems.

  - TIPO provides Honeywell and IBM-based batch, remote batch, on-line, data base management, and transaction processing to all business sectors of GE worldwide.

- General Electric Professional Services Company is GEISCO's wholly owned professional services subsidiary, formed in March 1983 with the merger of GEISCO's Software Development and Consulting Operation and LTI Consulting Services, Inc. subsidiary. Headquartered in New York City, GE Professional Services has 1,400 employees, 280 of which will be based outside the U.S. There is currently an office in London, with plans to open offices in Toronto and Hong Kong. Combined 1982 revenue for the two operations was nearly $80 million.

- In summary, GEISCO is currently organized into the following subsidiaries:

  - Banking Systems Inc., with 36 employees and headquartered in Dallas, markets banking software products.

  - Software International Corporation, with 370 employees and based in Andover (MA), markets accounting and financial applications software packages.

  - Network Consultants, Inc. of Chicago, with 72 employees, markets software products and provides professional services to the banking and finance industry.

  - GE Professional Services Company, with 1,400 employees, is based in New York City and generated nearly $80 million in 1982 professional services revenue.

- GEISCO's principal competition comes from Boeing Computer Services, Xerox, Tymshare, IBM, and Control Data Corporation.

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KEY PRODUCTS AND SERVICES

- GEISCO's 1982 noncaptive revenue was generated approximately as follows:

	Percent of Total	Revenue ($ millions)
Processing services	77%	$425
Professional services	15	80
Software products	6	35
Turnkey systems	2	10
	100%	$550

- The MARK III® Information Service consists of the following major elements, serving over 6,000 clients:
  - Foreground Service (interactive processing on Honeywell computers).
  - GCOS Background Service (remote batch processing on Honeywell computers interfacing with the Foreground Service).
  - Distributed Data Processing Service (distributed processing on IBM Personal Computers (PC), MARKLINK® minicomputers, and TeleVideo and MSI Data Corporation terminals).
  - MARK 3000T.M. Service (remote batch and interactive processing on IBM and compatible computers).
- Foreground Service is the primary offering on the MARK III network. Interactive remote processing on Honeywell computers is available from most major U.S. cities. GEISCO offers two libraries consisting of over 2,000 software products, a summary of which is found in Exhibit A.
  - Certain products were developed by GEISCO or licensed from major software vendors. These packages are fully supported by GEISCO.
  - Several hundred products from independent software authors (often users) are available on-line through Network Software Services (NSS). These packages are offered under royalty agreements and are supported by the author.
- Background Service augments interactive processing with remote batch capability on Honeywell computers. GEISCO computers can be connected to in-house equipment for interprocessing.
- The Distributed Data Processing Service (DDP) provides local processing capability in addition to access to the MARK III network and GEISCO computers via IBM PCs, MARKLINK minicomputers, and TeleVideo and MSI Data Corporation terminals.

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EXHIBIT A

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – HONEYWELL DPS-8/70s, MARK III, GCOS
• PROGRAMMING LANGUAGES SUPPORTED – FORTRAN 77 – COBOL – PL/1 – BASIC
• DATA MANAGEMENT SOFTWARE – DMS III – HISAM – DM IV – SYSTEM 2000 – MARK IV – DCM – FLEXIMIS – SAS – REQUEST – SITE II – EPICS – MARDATA
• DATA BASES AVAILABLE – MAP (ECONOMETRIC DATA BASE) – CURRENCY DATA BASE SERVICE – SECURITIES DATA BASE SERVICE – VALUELINE – NEMA (NATIONAL ELECTRICAL MANUFACTURERS) – DEPARTMENT OF COMMERCE (SIC) – FEDERAL TRADE COMMISSION – CITIBASE – PETROLEUM INSTITUTE – DWIGHT'S ENERGYDATA – CORPORATE FINANCIAL DATA SERVICE – BUSINESS AND FINANCIAL DATA BANK – BI/DATA – COMMODITY FUTURES – AHAM (HOME APPLIANCE MANUFACTURING) – UCLA BUSINESS FORECASTING
• FINANCIAL APPLICATIONS/TOOLS – GENERAL BUSINESS ACCOUNTING – FINANCIAL ANALYSIS – FORECASTING – AUDITING
• BANKING/CASH MANAGEMENT
• CHEMICAL
• COMMUNICATIONS – TELEPHONE COMPANY OPERATIONS AND FINANCE
• CONSTRUCTION
• DISTRIBUTION MANAGEMENT
• ELECTRIC AND GAS UTILITIES – ENERGY MANAGEMENT – ENERGY BROKER – UTILITY MODELING
• ELECTRONIC MAIL
• ENGINEERING – CIVIL – MECHANICAL – ELECTRICAL AND ELECTRONIC
• HUMAN RESOURCE MANAGEMENT

APPLICATION AREA/PRODUCT NAME
• INSURANCE
• INVESTMENT RESOURCE MANAGEMENT
• INVENTORY CONTROL/ORDER SERVICE
• GRAPHICS AND PLOTTING
• LINEAR PROGRAMMING
• MANUFACTURING – INDUSTRIAL ENGINEERING – PLASTICS ENGINEERING – MANUFACTURING MANAGEMENT – NUMERICAL CONTROL – PRODUCTION SCHEDULING – QUALITY CONTROL
• MARKETING AND SALES
• MATHEMATICS
• MEDICAL AND HEALTH CARE
• MINING
• OPERATIONS RESEARCH AND MODELING
• PETROLEUM/ENERGY
• PROJECT PLANNING AND MANAGEMENT
• REAL ESTATE
• SIMULATION AND MODELING
• STATISTICAL ANALYSIS AND FORECASTING
• TRANSPORTATION – MARINE MANAGEMENT
• MISCELLANEOUS

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- MARKLINK is based on Texas Instruments 774 series and BS 300, 600, and 800 minicomputers.
  - Purchase prices range from $12,000 to $30,000 per system.
  - Lease prices range from $300 to $750 per month, per system. An average system leases for $400 per month.
  - Available applications concentrate on the collection, validation, processing, and transmission of source data. Capabilities including word processing. There are 900 MARKLINK users.
- In July 1982 GEISCO added two terminals as data entry options for its DDP services.
  - The TeleVideo 950 is used as an interactive printer terminal or low-cost batch workstation. Available for lease or purchase, pricing begins at $1,195 per unit.
  - The MSI/88s is a hand-held terminal priced from $1,150 per unit.
- IBM PCs and PC-XTs are also used in conjunction with the DDP service. Purchase price for the PC is $4,302.

- The MARK 3000 Service is an IBM-compatible companion service to the Honeywell-based offerings. Remote batch and interactive processing on large-scale IBM computers is available. Applications available on this service are shown in Exhibit B. Usage is split between general business applications and engineering, simulation, and statistical analysis applications.
  - New applicatons available on the MARK 3000 service include the following:
    - CPL/TACTIX, a budgeting and financial planning modeling tool introduced in June 1982, is also available as a software package running on IBM and compatible mainframes.
    - FCS-EPS, a decision support system for financial planning and analysis, was introduced in April 1983. The MICRO-FCS version runs on the IBM PC for distributed processing.
    - FOCUS, a data base management system developed by Information Builders, Inc., was introduced in July 1983.
    - DISPATCH 3000, introduced in July 1983, is a comprehensive distribution management system offering all basic warehousing applications along with general ledger, accounts payable and receivable, fixed assets and depreciation, employee records and commissions, and container tracking. The product is also available as a software package running on IBM mainframes under DOS and MVS.

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EXHIBIT B

APPLICATIONS AVAILABLE ON MARK 3000 SERVICE

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – IBM 3081, MVS, TSO, CICS
• PROGRAMMING LANGUAGES SUPPORTED – FORTRAN 77 – COBOL – PL/1 – BASIC
• DATA MANAGEMENT SOFTWARE – MARK IV – IMS – SYSTEM 2000 – LIBRARIAN – MIMS SYSTEM – FOCUS
• DATA BASES AVAILABLE – PETROLEUM DATA BASE
• FINANCIAL APPLICATIONS/TOOLS – GENERAL ACCOUNTING – FINANCIAL PLANNING (FCP-EPS) – FORECASTING (SIMPLAN) – BUDGETING AND MODELING (CPL/TACTIX)
• SCIENTIFIC AND ENGINEERING – MECHANICAL ENGINEERING AND DESIGN • NASTRAN • SUPERB • ANSYS – CIRCUIT ANALYSIS • ASTAP
• GRAPHICS – TELL-A-GRAF – SAS/GRAPH – SYMAP – CALFORM – ASPEX

APPLICATION AREA/PRODUCT NAME
• RESOURCE MANAGEMENT – MARK IV EEO – PROJECT MANAGEMENT • PC-70 • PROJECT/2
• ENERGY – APEC PROGRAMS – DRILLING ACTIVITY ANALYSIS – EXPLORATORY WELL FILE – EQUIPMENT SELECTION – TRACE (TRANE AIR CONDITIONING ECONOMICS)
• ORDER SERVICE – DISPATCH 3000
• MANUFACTURING – MIMS MFG – PLASTICS ENGINEERING
• DISTRIBUTION – VEHICLE ROUTING – VSPX (VEHICLE SCHEDULING)
• MATHEMATICS – MPS III – MPSX/370 – SPSS
• PLANNING AND MODELING – BMDP (PRODUCTION SCHEDULING) – CSMP III (SIMULATION) – DYNAMO III/F (SIMULATION) – GPSS V (SIMULATION) – KETNET – MAGEN (MATRIX GENERATOR)

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- GEISCO offers full network support services to its clients.
  - Professional services offered to all GEISCO clients include technical support for systems development, integration of major applications, programming, and planning for efficient network usage.
  - Training courses are offered by GEISCO, its affiliates, and Network Software Services authors. The courses are provided at the International Training Center in Rockville, through worldwide remote sales offices, and at client sites. Training is also available to non-clients.
- Recent product offerings on the MARK III network include the following:
  - Several on-line oil and gas production/exploration applications resulting from the acquisition of Energy Enterprises of Denver, including:
    - Reserve Analysis and Management System (RAMS).
    - Production and Price Monitoring System (PMS).
    - Land Accounting Management System (LAMS).
    - Geological Mapping System (GEO).
  - The QUIK-COMM™ System, an electronic mail system accessed via desk-top or portable terminals, was introduced in 1981 after being used internally by GEISCO for over four years.
  - DISPATCH 1000, introduced in March 1982, is a basic order service system designed to be fully customized to facilitate specialized order processing, inventory control, and management reporting for wholesalers, retailers, and manufacturers in finished goods inventory. DISPATCH 1000 can be accessed via MARKLINK systems installed at user sites. Initial implementation cost is $50,000, not including the MARKLINK system.
  - The International Ledger System, introduced in June 1982, is a multilingual, multi-currency integrated general ledger system.
  - PLOT III business graphics software was made available in August 1982.
  - TABOL Database Manager (TDM), an enhancement to the TABOL financial analysis language, was also introduced in August 1982.
  - Sprinkler System Software (SSS), made available in October 1982, is a series of packages used to design sprinkler systems.
  - In November 1982 a software interface linking VisiCorp's VisiCalc package with GEISCO's network was introduced. The interface, developed by Accounting Systems, Ltd., extracts accounting information from GEISCO data bases and transmits the data to a user's IBM PC.

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- Extended Command Language (EXCL) allows users to tailor MARK III system commands to their particular business requirements and vocabulary. EXCL was introduced in January 1983.

- Global Limits System, also introduced in January 1983, assists international banks in controlling their money market and foreign exchange exposure by maintaining and enforcing global trading limits. The system is also available as a software package.

- In March 1983 GEISCO announced the availability of several applications for the ocean shipping industry, developed and supported by EAC Data, Ltd. and designed for use with the MARKLINK system. Applications include Equipment Management and Agent Systems.

- Hotline, an oil and gas scouting service introduced in April 1983, allows access to data bases of information on well permits, drilling activity, and completions which are updated daily.

- DISPATCH 2000, introduced in July 1983, is a distributed system that processes warehouse applications including order entry, order processing, inquiry, inventory control, picking, billing, and sales analysis. When used with MARKLINK systems both local standalone and multiple warehouse operations can be processed, allowing centralized management of dispersed locations.

• Recent developments involving GEISCO's network services include the following:

- In January 1982 GEISCO introduced the MarkQuik Terminal, a battery-operated 2 1/2 pound portable mini-terminal with electronic voice capabilities manufactured by Novation, Inc. of Tarzana (CA). MarkQuik accesses both the MARK III and MARK 3000 networks, providing business services including energy audit, data/order entry, inventory management, cash consolidation, and electronic mail.

- The computer-aided engineering (CAE) and numerical control software of GE-CAE International, Inc., a joint venture formed in January 1982 by GE and Structural Dynamics Research Corporation, is available on the GEISCO network.

- In May 1982 GEISCO opened an Energy Center in Houston, consolidating energy-focused software and data bases, a processing center, technical support, seminars, and training in one facility to serve the exploration and production needs of petroleum companies.

  . Software and other services assist with production and price monitoring, well planning, drilling assistance, offshore operations, refining, transportation, financial analysis, graphics, mapping, and government reporting requirements.

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- In September 1982 GEISCO signed an agreement with IBM to purchase $10 million worth of IBM PCs. GEISCO has developed a software link, Time Sharing Interface (TSI), to interface microcomputers to its MARK III and MARK 3000 networks.

  . The microcomputers may be used as customized workstations, intelligent terminals, and data entry terminals.

  . GEISCO will be responsible for all application support and hardware maintenance for the IBM PCs.

  . Network access, including data entry, will also be supported for clients using other microcomputers, initially the Apple II Plus and Tandy TRS-80 Model II.

  . Purchase price for the IBM PC is $4,302. Leasing is not available.

- In January 1983 GEISCO introduced the new Database Storage Unit (DBU), a lower cost alternative making the storage of large on-line data bases more feasible. Under differing pricing levels the DBU price drops from 8 cents a unit to 6 cents for a $500 monthly subscription fee, and to 3 cents for a $4,000 monthly fee.

  . In September 1983 GEISCO will introduce the FORTRAN Production System (FPS) which will offer savings of up to 40% in processing for large production applications.

- In July 1983 GEISCO introduced MARK III Shared Applications, a service providing on-line host-to-host processing between client and GEISCO computers, linking the MARK III and 3000 networks to clients' in-house applications and data bases on a real-time transaction basis. The processing workload of critical applications can be shared among hardware elements worldwide.

  . Client computers can execute high-volume processing, using the network host for data collection and validation.

  . The network host can be used as a front-end to tie together separately developed applications and diverse hardware.

  . Many models of mini-and microcomputers can be linked together for centralized management control.

  . The service provides improved in-house system capacity management and insulation from the impact of peak on-line loads and system downtime.

  . GE Professional Services Company resources are available to support client applications.

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- GEISCO plans to introduce several new network-related products during fall 1983.
  - To support the integration of microcomputers with its network, GEISCO will release the following products:
    - A data base management system configured for multi-level applications with microcomputer functionality.
    - A decision support system for the MARK 3000 service front-ended with personal computers.
    - A new cash management system with microcomputer interfaces.
    - A form and menu generation capability for rapid implementation of host/micro applications.
    - An IBM PC link to the QUIK-COMM electronic mail system.
  - The MARK-NET™ Service, a value-added network offering resulting from an unbundling of the U.S. portion of GEISCO's teleprocessing network, will initially be available in the U.S. only.
- GEISCO markets MIMS MFG Applications Software for manufacturing planning and control to manufacturing clients. The MIMS MFG packages, Materials Management, Shop Floor Control, and Sales Order Management, are written in the non-procedural MIMS language. MIMS MFG packages run on IBM and compatible mainframes and are available on the MARK 3000 service or licensed for in-house use.
- GEISCO offers financial applications software packages through its Software International Corporation (SIC) subsidiary.
  - SIC's corporate financial packages are an integrated family of financial applications which include General Ledger and Financial Reporting, Accounts Receivable, Accounts Payable, Fixed Asset Accounting, Payroll/Personnel, Human Resources Management, Fiscal Management (Fiscal DSS), Comprehensive Report Writer, and the Forecasting, Modeling, and Reporting System.
    - Tailored versions of SIC's General Ledger and Fixed Asset Accounting systems are marketed to the banking industry. Additionally, a Financial Reporting and Work Order Management system is sold to the utility, construction, and transportation/communications industries.
    - The General Ledger package, introduced in 1970, is SIC's top-selling product.

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  - The products are available on a variety of IBM and compatible, DEC, Univac, ICL, Hewlett-Packard, and Wang computers.

  - Seven of SIC's financial management packages became available on Wang's VS systems with integrated word processing capabilities in December 1982. These packages range in price from $14,500 to $30,500.

- SIC discontinued marketing its MRP Systems manufacturing software packages during the past year to concentrate on the financial software market.

- GEISCO's Banking Systems Inc. (BSI) subsidiary markets the MAX multi-bank software package, an on-line retail banking transaction processing system. MAX runs on Tandem NonStop computers and is terminal type independent.

  - MAX consists of the following basic service components required by financial institutions.

    - Automated Teller Machine.
    - Manned Teller Device.
    - Point of Sale Terminals.
    - Bill Payment.
    - Customer Information.
    - Data Entry.

  - The system handles any portion of a bank's on-line transactions, provides switching capabilities, and controls a terminal network while front-ending a host computer.

  - The MAX software license fee ranges from $150,000 to $300,000. There are approximately 15 installations of the product, which may also be configured for sale as a turnkey system.

- GEISCO provides banking software and consulting services through its Network Consultants, Inc. subsidiary.

  - The company derives the majority of its revenue from marketing MoneyNET, an interactive funds transfer software package operating on Tandem NonStop computers.

    - MoneyNET provides corporate cash management, Federal Reserve funds trading, money desk transaction processing and position management, and customer account file maintenance and accounting system interface. There are over 20 installations of the product.

  - In addition to banking applications, Network Consultants provides consulting services including project management; systems analysis, design, and implementation; requirements definition; performance

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evaluation and tuning; and training. The company has developed systems for banking, corporate treasury offices, office automation, telephone emergency dialing, and retail catalog order entry.

- General Electric Professional Services Company, a GEISCO subsidiary formed in March 1983 with the merger of the company's Software Development and Consulting and LTI Consulting Services operations, provides professional services including consulting, customized software, and systems development.

  - Areas of expertise include:

    . EDP performance and usage evaluation.
    . Organization analysis.
    . Data base design.
    . Data network hardware evaluation and selection.
    . Store and forward, bank money transfer, message switching, and order service systems design.

  - In June 1983 GE's Space Systems Division (SSD) began using Genstar, a package developed by GE Professional Services Company which allows prospective employees to submit resumes through personal computers equipped with telecommunications capabilities. The resumes are transmitted via GEISCO's network.

INDUSTRY MARKETS

- GEISCO clients include about 75% of the Fortune 500. 1982 noncaptive revenue was derived approximately as follows:

General business applications	30%
Manufacturing	25
Banking and finance	12
Energy/petroleum	12
Order service/distribution	10
Other	11
	100%

GEOGRAPHIC MARKETS

- Approximately 70% of GEISCO's noncaptive 1982 revenue was derived from the U.S. and nearly 30% from international operations.

- GEISCO products and services are offered through 190 sales offices worldwide. U.S. regional offices located in New York City, Atlanta, Chicago, and San Francisco serve 24 sales districts and 79 branch offices.

- GEISCO's network provides clients with local dial-up services in 750 cities located in 25 countries and is available 24 hours a day, seven days a week, 365 days a year.

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COMPUTER HARDWARE AND SOFTWARE

- The GEISCO network uses approximately 500 processing and communications computers. Over 400 of these are Honeywell PMSDs, used to handle communications. Forty-eight large-scale IBM and Honeywell processors are concentrated in supercenters in Cleveland, Rockville, Schenectady (NY), and Amsterdam. These consist of:
  - Thirty Honeywell DPS-8/70s operating under GEISCO proprietary software for interactive processing and 15 Honeywell DPS-8/70s running under GCOS for background remote batch processing.
  - Three IBM 3081s operating under MVS for interactive and remote batch processing on the MARK 3000 service.
- GEISCO's teleprocessing network handles over 6,000 users simultaneously and consists of 500,000 miles of connecting circuits including land lines, microwave relay paths, two undersea cables, and four satellite links.

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GENERAL ELECTRIC CAE INTERNATIONAL, INC.
300 TechneCenter Drive
Milford, OH 45150
(513) 576-3800

Joe R. Frazier, President
Joint Venture of General Electric and Structural Dynamics Research Corporation
Total Employees: 100
Total Revenue, Fiscal Year End 12/31/82: $12-15 million*

THE COMPANY

- Effective January 1, 1982, General Electric CAE International, Inc. (GE-CAE International) was established as a joint venture company of General Electric Company (GE) and Structural Dynamics Research Corporation (SDRC) to provide computer-aided engineering (CAE) and numerical control (NC) software, processing, and professional consulting services.

- The venture began in November 1981 when GE acquired a 48% interest in SDRC, paying $9.1 million in cash plus other considerations (the remaining 52% of SDRC is owned by its employees). GE paid SDRC an additional $10 million as part of the joint venture agreement, with future incentive payments to be made based on the earnings in 1982-1985.

  - Prior to January 1982, SDRC developed and marketed CAE and NC software through a subsidiary, CAE International, and provided mechanical and manufacturing engineering consulting services. As a result of the joint venture, all of SDRC's computer services business (software products) became part of GE-CAE International.

  - GE-CAE International is 51% owned by GE and 49% owned by SDRC.

KEY PRODUCTS AND SERVICES

- One hundred percent of GE-CAE International's revenue is derived from computer services. INPUT estimates that the majority of the company's revenue is derived from applications software products, and the remainder from processing and professional services.

- The following software products currently offered by GE-CAE International were developed by SDRC.

  - These products can operate independently or as part of a fully integrated system sharing a common data base.

*INPUT estimate

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- All elements of the mechanical product development process are addressed: design, analysis, testing, drafting, documentation, and manufacturing.

- Software products marketed are:

  . SDRC SUPERB, a general purpose finite element program for analyzing mechanical components and assemblies. It performs static and dynamic structural analyses and heat conduction analyses.

  . SDRC SUPERTAB, a finite elements pre- and post-processing package, which allows the user to create, edit, and display two- and three-dimensional models and stress contour plots.

  . SDRC FRAME, a structural analysis package which performs static, dynamic, limit, and buckling analysis of any structure which can be represented by interconnected beams.

  . SDRC IMP, an integrated mechanism package.

  . SDRC SYSTAN, a program for analysis of mechanical system dynamics. It allows the user to evaluate the performance of a total system from assembled component information.

  . SDRC GEOMOD, a three-dimensional solids modeling tool which provides solids geometry used in the CAE design cycle.

  . SDRC SYSTEM DESIGN permits the user to manipulate individual three-dimensional solid objects and assemble them as total mechanical systems.

  . SDRC MODAL-PLUS collects, analyzes, and displays data from artificial excitation tests. Both total systems and single components can be tested.

  . SDRC FATIGUE, a structural fatigue life estimation package which analyzes strain signals from mechanical equipment.

  . SDRC SABBA, a mechanical systems design analysis module.

  . SDRC OPTIMOD, an interactive program for structural modification and system analysis.

  . SDRC HI-PRO, an integrated NC tape preparation system for sheet metal fabrication operations. Modules include SUPER-SHEAR for shearing operations, and PUNCH for punching operations.

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- GE-CAE also develops, supports, and markets ADAPT, an NC software package designed by General Electric Information Services Company (GEISCO). ADAPT is a parts programming system designed for two-and-one-half-axis and three-axis linear position work.

- GE-CAE International staff also develops custom post-processor software based on specific client application needs.

- Software is licensed for a one-time fee plus a monthly maintenance charge. It may also be leased on a monthly basis. Software products and prices are listed in the exhibit. A variety of upgrades are also available.

- The software is available for use on IBM 370s, IBM 3000s, and CDC 6000s, running under TSO; IBM 4331s, 4341s, and DEC VAX-11/780s, 11/750s, and 11/730s, running under VMS; and DEC PDP-11/34s and Genrad 2508s, running under RSX or RT. Some modules are not available for all configurations.

- The software is sold worldwide by GEISCO and by about 20 third-party vendors including IBM and GenRad, which markets some modules with its hardware in turnkey form.

- GE-CAE International has established seven Productivity Centers around the world to allow prospective clients to investigate and use CAE software and facilities before making a long-term investment.

  - Each center is equipped with GE-CAE software, DEC VAX-11/750, 11/780, GenRad, and CALMA CAD/CAM equipment. Centers are staffed with consultants, programmers, and technicians who provide training and advice or perform the customer's entire CAE project.

  - Services include: data base generation, custom graphics, programming, solid modeling, design, documentation, plotting, flat pattern development, perspective and isometrics, NCCL file output, and PCB layout and design.

  - Centers provide regularly scheduled seminars and customer training. Seminars are also available at the client's site.

  - Productivity Centers are located in Milford (OH), Detroit, San Diego, Paris, Tokyo, London, and Wiesbaden (West Germany).

- Most GE-CAE International software packages are also accessible to users as processing services applications.

  - The following NC applications, designed by GEISCO and marketed and supported by GE-CAE, are available on a remote computing services basis only.

    . APT, a standard NC language for all types of machine tools including two-, three-, four-, and five-axis machines.

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EXHIBIT

GE-CAE INTERNATIONAL SOFTWARE PRODUCTS*

PRODUCT	YEAR INTRODUCED	OPERATING SYSTEM	LICENSE	MONTHLY MAINTENANCE	MONTHLY LEASE
SUPERB	1973	VMS, TSO	$35,000	$400	$1,700
SUPERTAB II	1975	VMS, TSO, RSX	40,000	500	1,800
FRAME	1970	VMS	30,000	400	1,700
IMP	1978	VMS, TSO	20,000	400	1,100
SYSTAN	1981	VMS	40,000	600	2,100
GEOMOD	1982	VMS	30,000	400	1,500
SYSTEM DESIGN	1982	VMS	50,000	600	2,500
MODAL-PLUS	1975	RT	16,000	300	1,025
		RSX	18,600	350	1,050
		VMS	28,000	400	1,500
FATIGUE	1977	RT	13,000	150	625
		RSX	14,600	175	700
		VMS	22,000	200	1,000
SABBA	1974	RT, RSX	20,000	400	1,100
		VMS	30,000	400	1,500
OPTIMOD	NA	RT, RSX, VMS	12,000+	125+	550+
HI-PRO	1977	RDOS, RSX, VMS	17,000+	170	AVAILABLE
• SUPERSHEAR		RDOS, RSX, VMS	8,000+	80	ON
• PUNCH		RDOS, RSX, VMS	11,000+	110+	REQUEST
ADAPT	NA	VMS	25,000+	250+	1,200+

*Pricing provided by GEISCO.

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  - . GETURN, an NC programming system specifically designed for turning machines.
  - . NCUTIL, support software which aids in programming design.
  - . NCPPL, an NC/series flexible point-to-point language.
- Interactive and batch processing are provided through each of the seven Productivity Centers.
- The software is available on the RCS networks of CDC CYBERNET, GEISCO, and Comshare.

- In September 1982, GE-CAE International announced the NC Workcenter, a numerical control turnkey system featuring ADAPT software and interactive graphics capabilities, running on the DEC VAX-11/730.
- In October 1982, GE-CAE International began marketing the Engineering Workcenter, an integrated CAE system, sold separately as software or as a turnkey system.
  - The software runs on the DEC VAX-11/730 as a multi-user system and includes the following applications products:
    - . SYSTEM DESIGN.
    - . GEOMOD.
    - . SYSTAN.
    - . IMP.
    - . SUPERTAB.
    - . FRAME.
    - . SUPERB.
    - . MODAL-PLUS.
    - . FATIGUE.

INDUSTRY MARKETS

- GE-CAE International derives 100% of its revenue from the manufacturing industry, including automotive, aerospace, primary metals, plastics, agricultural and construction equipment, industrial systems, energy, and hydrocarbon processing.

GEOGRAPHIC MARKETS

- GE-CAE International derives the majority of its revenue from the U.S., with the remainder from Europe and Japan.
- Branch offices are located in Detroit, San Diego, London, Paris, Wiesbaden, and Tokyo.

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COMPUTER HARDWARE

- A variety of equipment is installed at the seven Productivity Centers of GE-CAE International including:
  - DEC VAX-11/750s and 11/780s.
  - CALMA CAD/CAM systems.
  - GenRad 2508s.
  - Evans & Sutherland systems.
  - IBM 4341s.
- The company has plans to install DEC VAX-11/730s at various locations during the next year.

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GE's IDM based RCS revs: 7.5M 1980

COMPANY HIGHLIGHT

GENERAL ELECTRIC INFORMATION SERVICES COMPANY
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

Gregory J. Liemandt, President
Owned 84% by General Electric Company, 16% by Honeywell, Inc.
Total Revenues, Fiscal Year End 12/31/79: $340 million*
Non-Captive Revenues: $305 million*

THE COMPANY

- General Electric Company introduced the first commercially available U.S. timesharing service in 1965. Processing was initially available on the MARK I service only in New York City and Phoenix. The MARK II service was announced in 1968, when over 20 metropolitan areas had network access. The network was renamed MARK III in 1972 when the interactive services were combined with a remote batch processing capability.

- General Electric Information Services Company (GEISCO) was formed in 1979 to consolidate worldwide MARK III services. The new organization unifies U.S. operations handled by General Electric Information Services Division, with European and Australian operations run by Honeywell. Honeywell retains a 16% interest in GEISCO.

- INPUT estimates that GEISCO's worldwide 1979 revenues were approximately $340 million.

  - U.S. non-captive revenues were approximately $195 million in 1979. INPUT estimates that an additional $35 million was captive to the parent.

  - International revenues were approximately $110 million in 1979. GEISCO's international revenues increased substantially over 1978, due primarily to a full year's contribution of the Honeywell customer base.

  - INPUT expects GEISCO to continue an average annual growth rate of approximately 20%.

- GEISCO made two acquisitions during 1979.

  - Mitrol, Inc., based in Lexington (MA), became a GEISCO subsidiary in August 1979. Mitrol was founded in 1970 to provide computerized systems to manufacturers. 1979 revenues were approximately $4.5 million. Mitrol offers packaged manufacturing and control software, and processing and professional services. Mitrol continues to operate independently of GEISCO, although Mitrol products are available on the MARK 3000 remote batch service.

* INPUT Estimate

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- Enercom, Inc., based in Tempe (AZ), was acquired in November 1979. Enercom has developed a product for utility companies which evaluates the energy efficiency of residential customers. Enercom's products are available on GEISCO's MARK III timesharing service.

- GEISCO announced in December 1980 that acquisition discussions were being held with Lambda Technology, Inc., a professional services firm. Lambda Technology's revenues in 1979 were $18.3 million, up 56% from 1978. Lambda Technology specializes in message switching, money transfer and store and forward systems. Custom application development is provided for both industry-specific and general business clients.

- General Electric agreed in principle December 1980 to purchase Calma Corporation from United Telecommunications, Inc. for approximately $100 million in cash. A further payment of up to $70 million will be made in 1985 based on Calma's performance. Calma's revenues for year end 1980 were approximately $50 million. Calma is one of the major suppliers of software and turnkey systems for computer-aided design and manufacturing. Calma's primary products are in electronics manufacturing, though other products for mechanical and mapping applications are also available.

KEY PRODUCTS AND SERVICES

- GEISCO's 1979 non-captive U.S. revenues (in $ millions) were generated approximately as follows:

Processing services	97%	$190
Professional services	3	5
	100%	$195

- The MARK III Information Service consists of five major elements, serving over 5,000 clients:

  - Foreground Service (interactive processing on Honeywell computers).

  - Background Service (remote batch processing on Honeywell computers).

  - Distributed Data Processing Service (distributed processing on MARKLINK™ intelligent terminals).

  - MARK 3000 Service (remote batch processing on IBM computers).

  - Professional Services (field technical assistance and contract programming).

- Foreground Service is the primary offering on the MARK III network. Interactive remote processing on Honeywell computers is available from most major U.S. cities. GEISCO offers two libraries of software products, a summary of which is found in Exhibit A.

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EXHIBIT A

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – HONEYWELL 60/66, MARK III, GCOS
• PROGRAMMING LANGUAGES SUPPORTED – FORTRAN 77 – COBOL – PL/1 – BASIC
• DATA MANAGEMENT SOFTWARE – DMS III – HISAM – DM IV – SYSTEM 2000 – MARK IV – FLEXIMIS – SAS – REQUEST – SITE II – EPICS – MARDATA
• DATA BASES AVAILABLE – MAP (ECONOMETRIC DATA BASE) – CURRENCY DATA BASE SERVICE – SECURITIES DATA BASE SERVICE – VALUELINE – NEMA (NATIONAL ELECTRICAL MANUFACTURERS) – DEPARTMENT OF COMMERCE (SIC) – FEDERAL TRADE COMMISSION – CITIBASE – PETROLEUM INSTITUTE – CORPORATE FINANCIAL DATA SERVICE – BUSINESS AND FINANCIAL DATA BANK – BI/DATA – COMMODITY FUTURES – AHAM (HOME APPLIANCE MANUFACTURING) – UCLA BUSINESS FORECASTING
• FINANCIAL APPLICATIONS/TOOLS – GENERAL BUSINESS ACCOUNTING – FINANCIAL ANALYSIS – FORECASTING – AUDITING
• CHEMICAL
• COMMUNICATIONS
• CONSTRUCTION
• DISTRIBUTION MANAGEMENT
• ELECTRIC UTILITIES
• ENGINEERING – CIVIL – MECHANICAL – ELECTRICAL AND ELECTRONIC

APPLICATION AREA/PRODUCT NAME
• INVESTMENT RESOURCE MANAGEMENT
• INVENTORY CONTROL
• GRAPHICS AND PLOTTING
• PETROLEUM
• LINEAR PROGRAMMING
• MATHEMATICS – COMPLEX NUMBERS AND FUNCTIONS – GENERAL – INTEGRAL AND DIFFERENTIAL EQUATIONS – MATRICES, VECTORS AND LINEAR SYSTEMS – POLYNOMIALS
• MANUFACTURING – INDUSTRIAL ENGINEERING – MANUFACTURING MANAGEMENT – NUMERICAL CONTROL – PRODUCTION SCHEDULING – QUALITY CONTROL
• MARINE MANAGEMENT
• MARKETING AND SALES
• PROJECT PLANNING AND MANAGEMENT – WORK MANAGEMENT SYSTEMS – JOBS
• SIMULATION AND MODELING
• MEDICAL AND HEALTH CARE
• STATISTICAL ANALYSIS AND FORECASTING – ANALYSIS OF VARIANCE – BMD STATISTICAL PROGRAMS – CONFIDENCE LIMITS AND HYPOTHESES TESTING – FORECASTING – PROBABILITY DISTRIBUTION FUNCTIONS – REGRESSION ANALYSIS AND CURVE FITTING – SPSS – STATISTICAL ANALYSIS SYSTEM – UNIVARIATE STATISTICAL ANALYSIS
• OTHER – TIP (TELEPHONE INFORMATION PROCESSING SERVICE)

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- Certain products were developed by GEISCO or licensed from major software vendors. These packages are fully supported by GEISCO.

- Many additional products from independent software authors (often users) are available through the Network Software Services (NSS). These packages are offered under royalty agreements and are supported by the author.

- Background Service augments interactive processing with remote batch capability on Honeywell computers. GEISCO computers can be connected to in-house equipment for interprocessing.

- The Distributed Data Processing Service was introduced in November 1978. The system provides local processing capability in addition to access to the MARK III network and GEISCO computers via MARKLINK intelligent terminals.

  - MARKLINK™ is based on Texas Instruments 990 and 774 series intelligent terminals. It is available for both sale and lease.

    . Available memory size ranges from 96 to 384K bytes.

    . Cartridge and floppy disks are available from 2-20M bytes.

    . Up to 16 ports are available to connect CRTs, keyboards and/or printers.

    . Purchase prices range from $21,000 to $94,000 per terminal.

    . Lease prices range from $800 to $3,700 per month, per terminal. An average terminal leases for $2,500 per month.

  - Available applications concentrate on the collection, validation, processing and transmission of source data.

  - MARKLINK's first user was the General Electric Supply Company to service its 173 warehouses throughout the U.S. Over 150 person years of software development were consumed to make the system operational. There are 30 additional users.

- The MARK 3000 Service was introduced in June 1979 as an IBM-compatible companion service to the Honeywell-based offerings. Remote batch processing on large-scale IBM computers is currently available. Applications available on this service are shown in Exhibit B. MARK 3000 currently has approximately 450 users. Usage is split between general business applications and engineering, simulation and statistical analysis applications.

- Professional services offered to all GEISCO clients include technical support for problem solving, programming and planning for efficient network usage.

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EXHIBIT B

APPLICATIONS AVAILABLE ON MARK 3000 SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
• OPERATING SYSTEM(S) – IBM 370/3033 MVS, TSO • PROGRAMMING LANGUAGES SUPPORTED – FORTRAN 77 – COBOL – PL/1 – BASIC • DATA MANAGEMENT SOFTWARE – MARK IV – SYSTEM 2000 – LIBRARIAN • DATA BASES AVAILABLE – PETROLEUM DATA BASE • FINANCIAL APPLICATIONS/TOOLS – GENERAL ACCOUNTING – FINANCIAL PLANNING – FORECASTING (SIMPLAN) • SCIENTIFIC AND ENGINEERING – MECHANICAL DESIGN · NASTRAN · SUPERB · ANSYS – CIRCUIT ANALYSIS · ASTAP	• RESOURCE MANAGEMENT – MARK IV EEO – PROJECT MANAGEMENT · PC-70 · PROJECT/2 • ENERGY – APEC PROGRAMS – DRILLING ACTIVITY ANALYSIS – EXPLORATORY WELL FILE – EQUIPMENT SELECTION – TRACE (TRANE AIR CONDITIONING ECONOMICS) • MANUFACTURING – MIMS (MITROL INDUSTRIAL MANAGEMENT SERVICE) • DISTRIBUTION – VEHICLE ROUTING – VSPX (VEHICLE SCHEDULING) • MATHEMATICS – MPS III – MPSX/370 – SPSS • PLANNING AND MODELING – BMDP (PRODUCTION SCHEDULING) – CSMP III (SIMULATION) – DYNAMO III/F (SIMULATION) – GPSS V (SIMULATION) – KETNET – MAGEN (MATRIX GENERATOR)

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- GEISCO has a custom application group of about 150 programmers and analysts to support application development and execution.

- GEISCO has a 24-hour, toll-free hotline service available to users in the contiguous United States to answer general questions concerning system usage, programming problems, emergency recovery and changes, etc.

- INPUT expects GEISCO to continue its move toward IBM-based processing services with the introduction of an IBM interactive service between 1981 and 1982.

- Through its MITROL subsidiary, GEISCO has acquired MIMS (Mitrol Industrial Manufacturing Services System) to expand and consolidate services to manufacturers.

  - MIMS operates on large-scale IBM mainframes and is available on GEISCO's MARK 3000 service.

  - Applications include materials requirement planning, inventory and production control engineering, purchasing, cost control, capacity planning, sales and marketing, shop floor control and configuration management.

INDUSTRY MARKETS

- GEISCO has developed or acquired specialized software to serve targeted industries, including manufacturing, banking, telephone and energy.

- GEISCO also offers general business services to most industries.

GEOGRAPHIC MARKETS

- Approximately 66% of GEISCO's 1979 revenues were derived from the U.S. and 34% from international operations.

- The MARK III network uses approximately 300,000 miles of circuits, serving 600 cities in 24 countries. Recent extensions have carried the service to Venezuela and Saudi Arabia.

COMPUTER HARDWARE AND SOFTWARE

- The GEISCO network uses approximately 200 computers. Most of them are Texas Instruments minicomputers handling communications. The main processors are concentrated in super centers in Cleveland (OH), Rockville (MD) and Amsterdam (Netherlands) and consist of:

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- Sixty Honeywell Series 60 Level 66/DPSs operating under GEISCO proprietary software for interactive processing and GCOS for background batch running.

- IBM 3033s operating under MVS for background batch services.

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Rev. Estimates (G. Lepard) – 1979
Fed' Govt 8
Comm'l Bus 167
Communication 18.8
193.8
Int'l 7 100
293.8

Phil Burns

COMPANY HIGHLIGHT

GENERAL ELECTRIC INFORMATION SERVICES COMPANY
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

GREGORY J. LIEMANDT
~~Donald S. Bates~~, President
84% owned by General Electric Company, 16% owned by Honeywell, Inc.
Total Employees: 3,000
Total Revenues, Fiscal Year End 12/31/78: $193 million*

THE COMPANY

- General Electric Company announced the first commercial timesharing service in 1965. The MARK I service was initially available only in New York City and Phoenix. In 1968, when more than 20 major metropolitan areas were able to access the GE computers via a local telephone call, the MARK II service was announced. MARK III was created when the MARK II network and interactive remote computing were combined with a batch processing capability in 1972.

- General Electric Information Services Company (GEISCO) was formed in 1979 through a joint venture with Honeywell, Inc. The new organization consolidates the marketing of the General Electric Information Services (GEIS) MARK III services. Prior to 1979, Honeywell's timesharing marketing operations were the authorized distributors for MARK III in the United Kingdom, most Western European countries, and Australia. Honeywell retains about 16% of GEISCO.

- INPUT estimates GEIS' 1978 revenues at $193 million, of which 10% ($19 million) were derived from services provided to the parent and 18% came from international operations, primarily through the marketing arrangement with Honeywell. This $35 million in international revenues comes from the transfer price of 40% of HIS revenues plus revenues from other countries such as Japan.

  - INPUT forecasts that GEISCO's revenues will reach $310 million in 1979. This assumption is based on GEISCO getting the full HIS revenue base in the international sector and an internal growth rate of about 20%.
    - International operations should contribute $100 million (31%) to 1979 revenues.
  - GEISCO management claims that the company has maintained an annual growth rate of over 20% since its origin.

- GEISCO has recently made two acquisitions and intends to continue to use acquisition as an expansion mode.

* INPUT Estimate

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- Effective August 31, 1979, Mitrol, Inc. of Lexington, Massachusetts became a subsidiary of GEISCO. The nine year old Mitrol developed and has been marketing a manufacturing planning and control software system known as the Mitrol Industrial Management System (MIMS). Mitrol will operate as a distinct entity from GEISCO. GEISCO management has stated that it intends to become a full-function supplier of manufacturing services and will use the acquisition of Mitrol to help it achieve that corporate goal.
- Enercom of Tempe, Arizona was acquired in November, 1979. The Enercom programs provide utility companies with a system to evaluate residential customers' dwellings for energy efficiency. The Enercom programs presently run on the MARK III network.

KEY PRODUCTS AND SERVICES

- Approximately 98% of GEISCO's revenues are generated by processing services and 2% by professional services contracts. GEISCO offers a library of nearly 1,800 applications on its network and serves 5,000 clients. The MARK III Information Service consists of five major elements:
  - Interactive processing services (Foreground service).
  - Remote batch processing (Background service).
  - MARK III distributed data processing (MARKLINK).
  - IBM-compatible remote batch processing (MARK 3000 service).
  - Personnel services (field technical assistance; contract programming).
- GEISCO's MARK III network uses satellite links, undersea cables, and telephone lines to provide RCS services from three large computer complexes: two in the United States (Maryland and Ohio), and one in the Netherlands.
- The key applications on GEISCO's MARK III network are found in Exhibit A. While subscribers to the MARK III network can access applications developed both by GE and by independent software authors, the majority of products offered have been developed externally. Called Network Software Services (NSS), these products are offered under royalty agreements and are supported by author documentation, training, and technical support. GEISCO provides only general training sessions in use of the MARK III Information Services Network.
- Remote batch (Background) Service consists of GCOS processing on Honeywell 6000 series equipment which can connect with customer's in-house computing equipment for interprocessing.
- In November, 1978, GEISCO introduced MARK III distributed data processing as a fully integrated distributed data processing system with all components available from a single supplier. The components include the MARKLINK intelligent terminal, applications software, teleprocessing network, clustered host computers and system maintenance.

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EXHIBIT A

GEISCO

APPLICATIONS AVAILABLE ON MARK III SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – HONEYWELL 60/66, MARK III, GCOS – IBM 370/3033, MVS, TSO – IBM 370/158, VS – TEXAS INSTRUMENTS • PROGRAMMING LANGUAGES SUPPORTED – FORTRAN 77 – COBOL – PL/1 – BASIC • DATA MANAGEMENT SOFTWARE – DMS III – HISAM – DM IV – SYSTEM 2000 – MARK IV – SAS – REQUEST – SITE II – EPICS – MARDATA • DATA BASES AVAILABLE – MAP (ECONOMETRIC DATA BASE) – CURRENCY DATA BASE SERVICE – SECURITIES DATA BASE SERVICE – VALUELINE – NEMA (NATIONAL ELECTRICAL MANUFACTURERS) – DEPARTMENT OF COMMERCE (SIC) – FEDERAL TRADE COMMISSION – CITIBASE – PETROLEUM INSTITUTE – CORPORATE FINANCIAL DATA SERVICE – BUSINESS AND FINANCIAL DATA BANK – BI/DATA – COMMODITY FUTURES • FINANCIAL APPLICATIONS/TOOLS – GENERAL BUSINESS ACCOUNTING – FINANCIAL ANALYSIS – FORECASTING • INVESTMENT MANAGEMENT AND ANALYSIS – SECURITIES – REAL ESTATE – CAPITAL • ENGINEERING – CHEMICAL – CIVIL – HEATING, LIGHTING AND VENTILATING – MECHANICAL – ELECTRICAL AND ELECTRONIC	• PETROLEUM INDUSTRY • ELECTRICAL UTILITIES • MANUFACTURING – INDUSTRIAL ENGINEERING – MANUFACTURING MANAGEMENT – NUMERICAL CONTROL – PRODUCTION SCHEDULING – QUALITY CONTROL • INVENTORY CONTROL • MATHEMATICS – SPECIAL FUNCTIONS – MISCELLANEOUS MATHEMATICS • GRAPHICS AND PLOTTING • NUCLEAR INDUSTRY • MICROPROCESSORS • MODELING, SIMULATION AND OPERATION RESEARCH AIDS – LINEAR PROGRAMMING – PROBABILISTIC MODELING AND SIMULATION • PROJECT PLANNING AND MANAGEMENT – WORK MANAGEMENT SYSTEMS – JOBS • STATISTICS – STATSYSTEM – SPSS – SIGMA – PROBABILITY • MEDICAL AND HEALTH CARE SERVICES • DISTRIBUTION • RESEARCH • OTHER – TIP (TELEPHONE INFORMATION PROCESSING SERVICE)

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- GEISCO uses a Texas Instruments intelligent terminal in its MARKLINK system. There is currently one installation of the system in the General Electric Supply Company.
- Each unit in the overall MARKLINK scheme is priced separately. A minimum minicomputer configuration including 64K bytes of main memory, one CRT and one floppy disk drive rents for $800 per month on a two year lease and sells for $21,230. A maximum configuration with 352K bytes, 16 terminals and 20M bytes of floppy storage rents for $3,690 per month and sells for $93,290.
- Communications and host processing are priced separately. Average cost for a user with ten remote sites used to perform order entry should run about $15,500 per month.
- Applications available on the mini include: inventory management and distribution functions.

- An IBM-compatible companion service to MARK III was inaugurated June 1, 1979 as GEISCO introduced its MARK 3000 service. State-of-the-art IBM technology for remote batch processing using the IBM Model 3033 central processor and MVS operating system comprises the new service which INPUT estimates generates between 2% and 4% of revenues. The MARK 3000 service couples with GEISCO's networking capabilities to benefit large-scale and small systems users.

- GEISCO offers professional services to MARK III clients in the form of technical support for problem solving, programming approaches, and efficient use of the MARK III service.

  - In addition, GEISCO has a Custom Application (CA) group of 150 programmer/analysts. Contract programming services primarily support application development for new and existing clients of the network.

INDUSTRY MARKETS

- GEISCO has either developed or acquired specialized software packages for use by a group of targeted industries including: manufacturing, banking and finance, telephone, and energy-related industries.

- In addition, GEISCO offers general business services to most industries.

GEOGRAPHIC MARKETS

- Eighty-two percent of GEIS's 1978 business was derived from the United States, and 18% from international operations.

- The MARK III network uses approximately 300,000 miles of circuits in its span to 24 countries, including 600 cities. Recent extensions have carried the service to Venezuela and Saudi Arabia.

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- In Japan, GEISCO has a joint venture with Dentsu, an advertising agency.

COMPUTER HARDWARE AND SOFTWARE

- The GEISCO network uses approximately 200 computers. Most of them are Texas Instrument minicomputers handling communications. The main machines are concentrated in super centers in Cleveland, Ohio, Rockville, Maryland, and Amsterdam and consist of:
  - 60 Honeywell Series 60 Level 66/DPS's operating under GEISCO proprietary software for interactive processing and GCOS for background batch running.
  - IBM 3033s operating under MVS for background batch services.

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Phil Berns

COMPANY HIGHLIGHT

GENERAL ELECTRIC INFORMATION
SERVICES BUSINESS DIVISION
401 North Washington Street
Rockville, MD 20850
(301) 340-4000

Donald S. Bates, General Manager
Division of General Electric Co.
Total employees: ~~2400*~~ 1800
Total revenues, fiscal year end
12/31/76: $120,000,000*
100,000,000 U.S.

12/77 = 151 US + 45% of $ overseas (OSC-Gail)

THE COMPANY

- General Electric was the first company to offer interactive processing as a commercial service. Begun in 1965, the services started in New York and Phoenix on a local basis. Within two years, it had expanded to 17 cities. The network evolved from users with multi-city locations demanding that data communications be added to the problem-solving capability of the system. The General Electric Information Services Business Division (GEISBD) now offers interactive processing and remote facilities management services to more than 5,000 customers via its 100,000 mile network.

- INPUT estimates total 1976 retail revenues for GEISBD to be $120 million, up from $100 million in 1975.

  - Approximatly $20 million of the 1976 revenues are derived from overseas where GEISBD authorized distributors market its services. — to GE This $20 million represents an estimated 45% of the total overseas commercial revenues. The other 55% of overseas revenues are paid to authorized distributors to cover sales and support costs. — to distributors

  - Honeywell is the largest of GEISBD's marketing agents and covers most of Europe. GEISBD services in Japan are distributed through a joint venture known as GE-Dentsu.

- Because GE has limited itself to internal growth, it has developed more slowly than those companies in the industry which have utilized acquisition as an expansion mode. This has limited GE's entry into into new markets.

- GEISBD's major strengths are its: large size; extensive network; GE name; concentration of equipment in Brook Park, Rockville, and Amsterdam; growth potential; GE's resources; and presence in 21 countries in Europe, Australia, Canada and Japan.

* Estimate by INPUT

August 1977

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- Eighty percent of the Division's revenues are produced by 20% of the clients, making its service potentially vulnerable to business losses. Mitigating this danger is the fact that no single client generates more than 2% of revenues.

KEY PRODUCTS AND SERVICES

- Processing services generate 95% of GEISBD revenues, remote facilities management (FM) 3%, and professional services 2%. Professional services are available only to existing clients in support of or as an enhancement to processing.

- GEISBD has a full line of problem-solving software on its network, MARK III. Its proprietary operating system supports a variety of languages:

  - BASIC
  - Two versions of interactive FORTRAN: FORTRAN IV and FORTRAN 77, the newest interactive FORTRAN, which was announced in March and conforms to current as well as proposed future standards. GEISBD claims it to be up to 20% more efficient than FORTRAN IV.
  - One version of COBOL. This, in addition to FORTRAN IV are optimized for background processing.
  - ALGOL is supported overseas.
  - JOVIAL is available but not supported by GEISBD.

- GEISBD also offers:

  - FAL II, a financial analysis language
  - DMS, a database manager
  - DMS II, an extended version of DMS, capable of interacting in French and German as well as English
  - StatSystem, a statistical analysis package
  - OMNI, order service program generator
  - TIPS, telephone information processing service, a voice answerback service
  - MAP, an econometric data base service
  - Currency Data Base Service used for financial reporting
  - Securities Data Base Service used by the financial community
  - Cash Management System used by corporate controllers

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- In addition to these GEISBD supported programs, the Division offers network software services (NSS) which are used by authors to market their software.

- GEISBD has targeted large rather than entry level clients. This makes the Division particularly vulnerable to the impact of new technologies as its users may have the capability to implement new or leading edge technologies before GEISBD.

- To reduce its vulnerability and strengthen its customer ties, GEISBD has a Custom Application Operation (CAO) with more than 125 professionals in the U.S. to develop software for custom turnkey applications utilizing many of GEISBD's software development tools.

  - These contracts focus on the development of large, complex production-type applications.

  - For example, OMNI, an order service program generator used by CAO, enabled GEISBD to implement a custom order entry service in less than one month; up to five months less time than normal.

APPLICATIONS

- More than 400 applications programs are available over the MARK III network, including order processing, personnel management, payroll, accounting, numeric control, statistics, modeling, engineering, nuclear power, industrial education, financial, and medical. In addition, many oil company products are piggy-backed over GEISBD's network.

- More than 150 of MARK III's 1,000 overseas customers use the network for international applications.

INDUSTRY MARKETS

- GEISBD focuses its marketing efforts on large companies and financial institutions which can benefit most from its international network. In addition it targets selected industries for which it has either developed or acquired software packages. These industries are:

  Electric and telephone utilities
  Petroleum
  Services (CPA firms principally)
  Banking
  Federal Government

- The Division also offers primarily general business services to most other industries and provides processing for the Hospital Corporation of America hospitals.

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GEOGRAPHIC MARKETS: GEISBD has a 100,000 mile network covering the North America, as well as more than 100 cities in Australia, Canada, Europe, and Japan.

COMPUTER HARDWARE AND SOFTWARE

- GEISBD has more than 100 Computers in Ohio, Maryland, and Holland. The centers include Honeywell HIS 6080 and IBM 370/158 mainframes. The network is composed of high-speed telephone and satellite links in North America and undersea cables to Europe, Australia, and Japan.
- MARK III network will support CPU to CPU hookups; any ASCII, EDCDIC, or correspondence code terminal; and touch tone telephones. Its Telephone Information Processing (TIP) system is a 300,000 word audio response system for use with 12-key touch tone telephones.

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COMPANY GEIS

FY 12/31

FISCAL YEAR	ANNUAL REVENUE ($millions)	ANNUAL GROWTH RATE (%)	COMMENTS
1971			
1972			
1973			
1974			
1975	100		
1976	120	20	
1977	140	17	
	empl 1800 (per Guildepart-CSC) - 151 US + overseas (45%)		
		18.5 %	Previous years Average
1978	160	14 %	1977-1978
		20%	Max Rate Projected
		12 %	Min Rate Projected

	Max Revenue	Min Revenue	Avg. Revenue
1979	$190	$180	$185
1980	230	200	215
1981	280	225	252
1982	330	250	290
1983	400	280	340

jo's cy

Catalog No. M A D 2

mailed 5/5/82

Ask about Energy Enterprises Denver

INPUT DIRECTORY OF LEADING FIRMS
1982

U.S. Processing should be 260M for 1981

Date: _____

Company Name: GEISCO

Street Address: _____

City, State, Zip: _____

Person Interviewed/Contacted: John Neuanschander

Title: _____

Phone: (301) 340-4730

Comments: _____

Internal Use

Data Compiled From:

Annual reports, 10K's etc.
Verified with Co. ☐ Yes ☐ No

Interview with Company
Verified with Co. ☐ Yes ☐ No

Estimated by INPUT
Verified with Co. ☐ Yes ☐ No

INPUT Analyst: _____

For your primary service, what percent comes from the following industries? (check primary service)

(97) ☐ Processing 1 ☐ Software 2 ☐ Professional Services 3 ☐ Integrated Systems 4

INDUSTRY	PERCENT 1981 REVENUE	1980/1981 GROWTH
Discrete Manufacturing	____ % (98)	____ % (113)
Process Manufacturing	____ % (99)	____ % (114)
Transportation	____ % (100)	____ % (115)
Utility	____ % (101)	____ % (116)
Banking and Finance	____ % (102)	____ % (117)
Insurance	____ % (103)	____ % (118)
Medical	____ % (104)	____ % (119)
Education	____ % (105)	____ % (120)
Retail Distribution	____ % (106)	____ % (121)
Wholesale Distribution	____ % (107)	____ % (122)
Federal Government	____ % (108)	____ % (123)
State and Local Government	____ % (109)	____ % (124)
Services	____ % (110)	____ % (125)
Other	____ % (111)	____ % (126)
Can't Classify	____ % (112)	____ % (127)
Total	100 %	

THANK YOU

☐ 1. H
2. M
3. L

INPUT

INPUT CONTACT REPORT

COMPANY: Geisco NAME: Greg Liemandt, Roger Hobbs, et al. TITLE: ADDRESS: PHONE ( ) - ☐ MAIL LIST	Date 11/18 INPUT STAFF PAC INIT. INIT. ☐ PHONE ☐ VISIT	REASON FOR CONTACT ☐ SALES ☐ INTERVIEW ☑ PRESENTATION ☐ SUPPORT ☐ OTHER	RELATING TO ☑ MAS ☐ SES ☐ CAMP ☐ USER ☐ FSP ☐ CUSTOM ID ☐ OTHER ID

DISCUSSION: · Two presentation - staff in morning and line in afternoon.

· Prime Contacts for us in future:

NOTE || (1) John Neuenschwander in Strategic Planning
(2) Gerry Paulsen in Marketing (Phil Berns works for Gerry).

· Lot of interest in profitability of RCS companies - we should get back to them as soon as possible.

BUSINESS DEVELOPMENT POTENTIAL:

· John says 'yes' on renewal - just a matter of who will pay.
· "Should have" European On-line Data Base study.
· Interest in CAD/CAM and personal computer.

☐ EXTRA PAGE(S) ATTACHED

ACTION DIST	TIME REQUIRED	DESCRIBE ACTION OR FOLLOW-UP	BY WHEN	DONE	INFO DIST
Mike		Change marketing lists, etc.			
Pete		Send Image Processing note to Roger.		✓	
		Bob Hench wants to talk about software			
Chip.		Close X-ODB with John. Also f'up with			
		"personal computer" with Bob Hench/John/Jerry.			
Stan.		Organize response on profitability			

WHITE•DIST GREEN•MARKETING OR PROJECT YELLOW•CONTACT PINK•EXEC GOLDEN ROD•ORIGINATOR

Company	Total Revenues - Fiscal Year End 1978	1977	1976	1975	Acquisition Information: Acquired Company	Place	Date	Rev.
CDC Tot.					Computing Assoc Inc ? Amer Health Grp ↳ Norris sits on Board of AHG.	Tuscon Az NYC	4/28/78 ? 8/77	cons to mining ? hosp ind
Data Svc 12/31		300.30 1,512.88	247.4 1,358.26	221.2 1,246.37				
GE 12/31		E140 -	120.00	100.00				
Informatics 12/31		75.6	59.3	39.4	Direct Dial Data Sys. - acctg sys acq from Greyhound See other sheet for continuation of acquisitions			

INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

July 1996

General Magic, Inc.

Chairman & CEO: Marc Porat
President & COO: Robert Kelsch
420 North Mary Avenue
Sunnyvale, CA 94086
Phone: (408) 774-4000
Fax: (408) 774-4010
Internet: http://www.genmagic.com

Status:	Public
Employees:	199 (7/96)
Revenue:	$14,165,000
Fiscal Year End:	12/31/95

Key Points

- General Magic, Inc. was founded to develop intelligent mobile computing devices and personal communication networks for the consumer market.
- With the rapid evolution of the Internet, General Magic changed the venue of its focus and, in June 1996, presented a newly Internet-focused strategy to produce engaging, active Internet software, accompanied by a series of announcements including the following:
  - Organizational restructuring designed to bring the company's technologies to the Web and corporate intranets
  - A repositioning of its product line for the Internet and introduction of its Tabriz AgentWare and SoftModem software
  - The company acquired Conterra Software, a Microsoft NT Internet/intranet application company, a first step in General Magic's commitment to provide an agent-based Internet solution for Windows developers.
- In May 1996, General Magic unveiled its new Presto!Mail and Presto!Links software products that allow mobile access to the World Wide Web, the Internet, multimedia

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E-mail, and corporate intranet connectivity using portable hand-held computers based on its Magic Cap interface software.

- Tony Rutkowski, cofounder of the Internet Society, joined General Magic in January 1996 as VP of Internet Business Development to help the company refine its Internet and Web efforts.

- In December 1995, General Magic unveiled the prerelease version of Magic Cap for Windows, the company's first software application for the personal computer market.

- In October 1995, the company began its Internet transition by offering the code for its Telescript development platform free of charge via the World Wide Web; additionally, current President Robert Kelsch was hired as COO and EVP.

Company Description

Evolving from a 1989 Apple Computer internal project, General Magic Inc. was incorporated in 1990 to develop the technologies and business relationships necessary to bring personal intelligent communications to the consumer market.

The company's refocused mission is to create and develop active, engaging Internet software.

General Magic now sees itself in the business of making networks more powerful and easier to use, which enables individuals and businesses to communicate and work more efficiently.

Built on the foundations of General Magic's Magic Cap and Telescript technologies, the company's newly released Presto! and Tabriz software are the company's first Internet-focused products.

Organization and Structure

General Magic is headquartered in Sunnyvale (CA) and also operates a wholly owned French subsidiary.

To fully address the needs of its target customers, General Magic has created two separate divisions—Communication Products Division and the Active Internet Products Division—each with its own charter, product line, and business partners.

Key executives of the company are listed below.

General Magic
Key Executives

Name	Title
Marc Porat	Chairman & CEO
Robert Kelsch	President & COO
Lucia Hicks-Williams	VP & GM Active Internet Products Division
Steve Schramm	VP & GM Communication Products Division
Tony Rutkowski	VP Internet Business Development
Andrew Hertzfeld	VP Magic Cap Technologies
Wendy Olszewski	Acting CFO, Controller

Company Strategy

In June 1996, General Magic unveiled its strategy and product plans for the Internet, corporate intranets, and the Web.

The new strategy builds on General Magic's original vision of making networks powerful yet easy to use, and its components are targeted at the new markets and opportunities presented by the explosive growth of the Internet and intranets.

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General Magic's new strategy involves several distinct aspects:

- The unbundling of Magic Cap and Telescript products, thus allowing the company to build independent brand identity for each product line and pursue specific segments of the Internet market with targeted product offerings
- The restructuring of the company into two distinct divisions:
  - The Communication Products Division, which includes Magic Cap, related technologies, and the new SoftModem
  - The Active Internet Products Division, responsible for Telescript and developing related products like Tabriz
- General Magic is ending its sole reliance on up-front licensing fees and annuity streams from exclusive partners. Its channel strategy now includes OEMs, value-added resellers (VARs), systems integrators, and independent software vendors.
- The company is embracing Internet and Web standards and intends to integrate Web and Internet functionality across its product lines.

Financials

General Magic's 1995 revenue was approximately $14.2 million, a 468% increase over 1994 revenue of $2.5 million. Net losses were $20.9 million in 1995, compared to net losses of $21.5 million loss of 1994.

To date, General Magic has devoted virtually all of its resources to research and development activities, establishing and leveraging its strategic alliance relationships, and marketing and promoting its technologies.

A three-year financial summary follows:

General Magic, Inc.
Three-Year Financial Summary
($ Millions, except per-share data)

	Fiscal Year		
Item	1995	1994	1993
Revenue	$14.2	2.5	N/A
• Percent change from previous year	*	N/A	N/A
Income (loss) before taxes	$(19.4)	$(21.0)	$(17.0)
• Percent change from previous year	8%	(23%)	N/A
Net income (loss)	$(20.6)	$(21.5)	(17.4)
• Percent change from previous year	4%	(23%)	N/A
Earnings (loss) per share	($0.84)	($1.36)	($1.11)
• Percent change from previous year	38%	(23%)	N/A

* *Percent change exceeds 1,000%.*

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Revenue growth in 1995 was attributed to the following:

- One-time license fees for Magic Cap and Telescript technologies to new customers in Japan and Europe was $9.9 million in 1995 compared to license revenue from one major OEM customer of $2.5 million in 1994.
- Also in 1995, General Magic generated $4.3 million in revenue from customer-specific engineering projects, maintenance and support services.
- To date, General Magic has generated minimal royalty revenue from Magic Cap-based device shipments and fees from AT&T's PersonaLink Services.

Net losses were due to the following:

- Selling, general, and administrative expenses increased 74% in 1995 to $18.1 million. This increase was primarily due to expanding the company's domestic and international sales efforts and providing more customer engineering, licensee support, and marketing programs.
- Research and development costs were $19.3 million in 1995, a 44% increase over $13.4 million in 1994.

Revenue Analysis by Product/Service

Approximately 70% of General Magic's 1995 revenue ($9.9 million) was derived from software licensing and the remaining 30% ($4.3 million) from engineering projects, maintenance, and support services.

The company has generated a majority of its revenues from licensing its software platform, Magic Cap, to multinational consumer electronics and computer companies and its Telescript communication technology to large network operators.

Interim Results

For the three months ending March 31, 1996, revenue was $2.8 million, a 33% decrease from $4.2 million for the same period in 1995. Net losses were $7.1 million, compared to a $3.6 million loss for the same period a year ago. Results were impacted by the company's recent shift in its product offerings to the Internet.

Market Financials

Business professionals, developers, device manufacturers, service providers, and corporate enterprises all represent target markets for General Magic products and services.

Target markets for Magic Cap-based products include intranet businesses that require low-cost, easy-to-use, integrated mobile solutions, heavy Internet users; and business and mobile professionals in a variety of vertical markets, from real estate and health care to travel and entertainment.

Target markets for Tabriz-based products include all companies that use the Internet to deliver information, products, and services—internally or externally.

Geographic Markets

Approximately 2% of General Magic's 1995 revenue came from the U.S. and 98% from international markets.

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Employees

As of December 31, 1995, General Magic had 208 full-time employees, segmented as follows:

Engineering and marketing	144
Sales and customer engineering	40
Administrative and finance	24
	208

The company currently has 199 employees.

Key Products and Services

Communication Products Division

The Communication Products Division licenses Magic Cap communication software, applications and derivative technologies, including Magic Cap for Windows, Presto!Links and Presto!Mail for Magic Cap hand-held personal communicators, and SoftModem fax software.

- Magic Cap Software Platform
  - Magic Cap software is designed to help people keep in touch by integrating electronic mail, telephone, paging, infrared beaming, and other methods of communicating.
  - Built into personal communicators and soon to be available as a Windows software application, Magic Cap allows developers to build software and services that are centered on communications and easy for users to personalize.
- Magic Cap for Windows, set for commercial release in late 1996, is an integrated E-mail, fax, and personal organizer that is designed to enhance communications for small office/home users.
  - It includes functionality found in the Magic Cap platform for personal communicators, with added features that make it an integrated communications center for Windows users.
  - Additionally, General Magic announced that Magic Cap for Windows will include full Internet access via bundling with Microsoft Internet Explorer, access to America Online, and direct support for popular on-line services and Internet service providers.
- Presto!Links and Presto!Mail provide users with mobile access to the Web, Internet E-mail, and corporate intranet connectivity via portable Magic Cap communicators.
  - Presto!Links 1.0 is a full-featured Web browser that runs on Magic Cap communicators and enables a user with a standard point-to-point protocol (PPP)-based Internet Service Provider account to navigate the Web, follow hypertext links, and access graphics and HTML forms.
  - Presto!Mail 1.5 is an Internet standards-based E-mail access client that provides users of Magic Cap communicators with direct access to Internet Service Provider electronic mailboxes, allowing users to send and receive E-mail, manage the contents of their mailbox, and send multimedia messages to other Magic Cap communicators.
  - Presto!Links 1.0 and Presto!Mail are available for $49.95, and customers receive 30 days of free support through General Magic's support line or electronic mail.
- SoftModem is software capable of performing a full suite of data and fax modem functions on general-purpose microprocessors, independent of operating system.

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- Unlike existing modems, which require a dedicated digital signal processor (DSP), SoftModem can share a single CPU with client applications.

- SoftModem gives consumer electronics and computer manufacturers the ability to reduce the cost and complexity of products by allowing them to include modem functionality without the expense of separate DSP chips.

Active Internet Products Division

The Active Internet Products Division licenses Tabriz agent products, including Tabriz AgentWare and Tabriz Agent Tools, which are powered by General Magic's Telescript programming language.

Telescript Agent Technology is an object-oriented programming language that facilitates the creation of active, agent-based network operations.

Tabriz AgentWare and Tabriz AgentTools contain all the components necessary for deploying agent-based applications on the Internet and intranets, including Web management tools.

- Tabriz AgentWare and Tabriz AgentTools enable the creation and deployment of software "agents" that can continually process and update a user's requests, even when the user is no longer connected, providing users with the flexibility to log in and out of the network while their agent continues to work on their behalf.

- Agents travel between Tabriz-enabled Web sites—interacting with other agents, gathering information, monitoring changes to information, performing tasks, and automating transactions.

- Agents can also retrieve information from non-Tabriz-enabled sites.

- Tabriz contains authentication, access control, privacy, and resource allocations, which ensure that each agent goes only where it's supposed to and does only what it's supposed to do.

- Additionally, Tabriz interacts with Sun Microsystems' Java programming language, can be accessed by any standard Web browser (e.g., Netscape Navigator), and supports standard HTTP servers.

- Carrying a suggested price of $4,995, Tabriz AgentWare is currently free for the first 90 days after shipment and Tabriz Agent Tools continue to be available for free.

Clients

General Magic licenses its open technologies to strategic business partners who in turn create products that implement the technology.

The company's recently expanded distribution channels include hardware manufacturers, public telecommunications operators, software OEMs, service providers, value-added resellers, systems integrators, and developers.

Among the companies that have transformed General Magic technology into hardware products and customer services are Sony, Motorola, AT&T, NTT Fan, Fujitsu, Metrowerks, Farcast, Fastline, and Kinetoscope.

Marketing and Sales

General Magic's marketing activities consist primarily of applications, developer support services, and marketing communications.

The developer support services are intended to attract and support a community of

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independent applications developers, electronic publishers, and merchants whose applications build on and enhance the Magic Cap and Telescript platforms.

Marketing communication activities are intended to establish the corporate identity of General Magic and its Magic Cap and Telescript brands and educate the buying public as well as third-party developers and service providers about General Magic's technologies and products.

Alliances

General Magic has formed a strategic alliance with leading computer and consumer electronics manufacturers and large telecommunications network operators to leverage the company's limited resources by capitalizing on the manufacturing, marketing, distribution, and network service capabilities of certain of these alliance members.

Under the General Magic Alliance model, each strategic business partner makes equity investment in the company as well as a licensing agreement for one or more of its core technologies.

In addition to funding the ongoing technology development and operations of the company, such equity investment ensures that each contributing company maintains a stake in the company's success and a say in its strategies and tactics.

Certain alliance members are in various stages of developing products or services based on General Magic's technologies, but many may not ultimately enter into technology license agreements with General Magic.

The members of the strategic alliance are:

- AT&T
- Cable & Wireless
- France Telecom
- Fujitsu
- Nippon Telegraph and Telephone
- PTT Telecom
- Apple Computer
- Matsushita
- Mitsubishi
- Motorola
- Nortel (formerly Northern Telecom)
- Oki Electric
- Philips Electronics
- Sanyo
- Sony
- Toshiba

Competition

Magic Cap-based devices compete with existing personal organizers (Apple Computer's Newton) and notebook and subnotebook computing devices.

Telescript-based networks will compete with other companies developing agent-based functionality, such as Motorola, Inc. and XcelleNet, Inc.

INPUT Assessment

General Magic's strengths include:

- Complete company and product focus on the promotion and development of Internet products
- Company experience in emerging personal communication and agent-based product markets

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- Strong financial and development backing from strategic alliance members and broad cross-industry support

Challenges in future years include:

- Stabilization of management and company focus
- Attaining profitability
- Rapid and continued new product development
- Staying ahead of an ever-changing industry through foresight and innovation
- Sustaining the financial and developmental support of strategic alliance members
- Attracting greater developer interest in company technologies
- Competition from major industry players in both Magic Cap and agent-based technologies

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

December 1994

GENESYS Software Systems, Inc.

President: Lawrence J. Munini
Five Branch Street
Methuen, MA 01844
Phone: (508) 685-5400
Fax: (508) 683-7665

Status:	Private
Employees:	150 (11/94)
Revenue:	$ 18,000,000
Fiscal Year End:	6/30/94

Key Points

- GENESYS Software Systems (GENESYS) offers a client/server solution for human resource management software and services. Client/server is a pivotal technology for an enduring market presence for systems and software vendors.
- GENESYS has positioned its product offering, software architecture, applications and technology to support the process of re-engineering—the fundamental rethinking and redesigning of existing business processes to improve work force productivity and quality and to allow the reduction of costs.
- INPUT has projected a 12% CAGR for human resources applications software solutions through 1996 with an 8% CAGR for processing services. GENESYS has positioned itself to take advantage of the two highest growth delivery modes for human resources solutions.

Company Description

GENESYS, founded in 1981, provides enterprise-wide human resource (HR), benefits and payroll sytems, professional services and outsourcing (processing) services to clients across industry sectors. The company offers client/server and mainframe solutions to address organizations' business and HR requirements.

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GENESYS is a registered trademark of GENESYS Software Systems, Inc.

Company Strategy

Since 1981, GENESYS' corporate strategy has been to provide technologically advanced HRMS solutions that match the human resource business needs of organizations, regardless of the hardware platform, database architecture or operating system a client prefers to operate.

GENESYS is committed to expanding its client/server market share by leveraging its expertise in enterprise-wide HRMS.

Financials

GENESYS' fiscal 1994 revenue is estimated at $18 million, a 20% increase over estimated fiscal 1993 revenue of $15 million. The company has operated profitably since 1981.

A five-year revenue summary follows:

GENESYS Software Systems, Inc.
Five-Year Revenue Summary
($ Millions

	Fiscal Year				
Item	6/94	6/93	6/92	6/91	6/90
Revenue	$18.0	$15.0	$13.7	$13.1	$12.5
• Percent change from previous year	20%	9%	5%	5%	7%

Revenue Analysis by Product/Service

GENESYS' fiscal 1994 revenue was derived approximately as follows:

Applications software	80%
Professional services	15%
Outsourcing	5%
	100%

Market Financials

GENESYS derives its revenue from across industry sectors.

Geographic Markets

Approximately 90% of GENESYS' fiscal 1994 revenue was derived from the U.S. and 10% from Canada.

In addition to its headquarters in Methuen (MA), GENESYS has regional offices in Irvine (CA), Dallas (TX), New York City (NY), Raleigh (NC), Jacksonville (FL), Voorhees (NJ) and Baltimore (MD).

Employees

As of November 1994, GENESYS had approximately 150 employees, segmented as follows:

Marketing/sales	25
Software services/customer support	95
General and administrative	30
	150

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Key Products and Services

Client/Server Solutions

GENESYS offers a full range of client/server solutions for human resources. These solutions will run on multiple hardware platforms and software environments.

GENESYS Products

The GENESYS *Payroll System* features on-line check production; on-line calculations; self-mailer check formats; direct deposit; labor distribution; and federal, state, and local taxes. The system also features net-to-gross check processing; retroactive payments; deduction arrears and recovery; table-driven calculation; automatic check reconciliation; multicompany/multilocation processing; and date sensitivity. Canadian federal and provincial taxes are also supported.

The GENESYS *Human Resource System* is a flexible, available system used to track and report human resource information. System components include applicant tracking, staffing, wage and salary analysis, training and development, turnover analysis, absenteeism tracking, benefits administration, government compliance, and union regulations.

The GENESYS *Human Resource Planning System* is designed to help organizations manage the integration of human resource planning with strategic business planning. System features include budgeting with actual versus budgeted costs, succession planning, career management, performance tracking, requisition control, analysis of position history and prior incumbents, and reconstruction of previous reporting relationships.

The GENESYS *Defined Contribution System* is a comprehensive and flexible system for the administration of capital accumulation plans. This system supports recordkeeping, calculations, and reporting for various tax qualifications such as 401(k) and 403(b), profit sharing, money purchase, savings, and other investment plans. System features include daily balances, eligibility and enrollment, election, multiple money sources, multiple investment fund choices, multiple vesting schedules, compliance testing, loan provisions and automatic repayment, non-discrimination testing, and dollar or unit/share accounting.

The GENESYS *Defined Benefits System* is a pension plan administration system. The system supports recordkeeping; calculations; participant reports; spousal, dependent and beneficiary data; historical data; pre-retirement counseling; benefits statements; and benefits payments and taxation. The system also supports multiplan modeling and "what if" analysis.

The GENESYS *Flexible Benefits System* is a comprehensive system for the administration of flexible benefits programs. The system offers eligibility and enrollment, processing, confirmation statements, management of medical plans, dental plans, vision plans, and default benefits, employee/employer contributions, spending accounts, FSA payments, dependent care and medical expenses, COBRA administration, death benefits life insurance, AD&D and dependent, life and long-term disability benefits management.

The GENESYS *Benefit Payment System* includes complete tax support, including: federal, state, local and NRA taxes; a comprehensive client access menu; extensive

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processing for periodic and non-periodic payments; an unlimited number of sources and deductions per account; direct deposit capabilities; detailed audit trails; third-party disbursement processing; on-line payment history; and check reversal.

The GENESYS *HealthCare HRMS* accommodates the legislative and reporting requirements of the health care industry. This integrated HR and payroll system handles complex changes in business rules and government requirements without programming and performs information modeling for downsizing, mergers or re-engineering. It also automates recordkeeping and coordinates budget management and position and staffing control.

GENESYS Support Services

GENESYS offers a range of support services, including system implementation; technical and application training and support; interactive training courses; and on-line and hotline support.

GENESYS Professional Services offer customers a staff of systems experts, management consultants and project managers who assist with system requirements and analysis of work procedures or assume complete responsibility for the entire implementation and re-engineering process.

In addition to system and application training and support, GENESYS keeps customers informed of legislative changes and compliance requirements.

GENESYS Payroll/Human Resource Outsourcing Services

GENESYS provides flexible, integrated service bureau processing, from integrated HR and payroll processing to simple paycheck production. Services are available for both short-term and long-term projects.

Clients

GENESYS currently has more than 600 customers in the U.S. and Canada.

GENESYS customers include ARMCO Steel, Bay Area Rapid Transit, Blue Cross/Blue Shield, Budget Rent-a-Car, Chase Manhattan Bank, Chemical Banking Corp., Coors Brewing Company, Corning Incorporated, Cumberland Farms, Fleet/Norstar Services Corp., Land's End, Royal Bank of Canada, Neiman-Marcus Group, Time Warner Inc. and U-Haul.

More than 300 hospitals and health care organizations are using GENESYS HRMS, including Children's Hospital and Medical Center, Hospital Corporation of America, Howard University Hospital, Massachusetts General Hospital, Medical Center of Delaware, New England Medical Center Hospitals and Saint Vincent Hospital.

Marketing and Sales

GENESYS markets its products and services through a direct sales force in regional offices in the U.S. and Canada.

Alliances

GENESYS has alliances with Bottomline Technologies, Inc. and Sybase, Inc.

Competitors

Major competitors include Oracle, D&B Software, SAP, Cyborg, Integral Systems and PeopleSoft.

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GENESYS SOFTWARE SYSTEMS, INC.
Five Branch Street
Methuen, MA 01844
(508) 685-5400

Lawrence J. Munini, President
Private Corporation
Total Employees: 140
Total Revenue, Fiscal Year End
6/30/90: $12,500,000*

*INPUT estimate

The Company

GENESYS Software Systems, Inc. (GENESYS), founded in 1981, provides human resource management application software products, processing, and consulting professional services to clients across industry sectors. The company is an IBM Business Partner.

GENESYS' corporate strategy is to provide a range of solutions that match the human resource business needs of organizations, regardless of the IBM hardware platform, data base architecture, or teleprocessing software a client prefers to operate.

INPUT estimates GENESYS' fiscal 1990 revenue reached approximately $12.5 million, a 7% increase over fiscal 1989 revenue of $11.7 million. The company has operated profitably since 1981. A five-year revenue summary follows:

GENESYS SOFTWARE SYSTEMS, INC.
FIVE-YEAR REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
ITEM	6/90	6/89	6/88	6/87	6/86	CAGR
Revenue	$12.5	$11.7	$11.1	$10.6	$9.9	6%
• Percent increase from previous year	7%	5%	5%	7%	10%	

As of October 1990, GENESYS had approximately 140 employees, segmented as follows:

Marketing/sales	32
Software services/customer support	60
Computer operations	3
General and administrative	45
	140

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Major competitors include D&B Software Services and Integral Systems.

Key Products and Services

GENESYS' fiscal 1990 revenue was derived approximately as follows:

Application software	80%
Professional services	15%
Processing services	5%
	100%

GENESYS' software products run on IBM 9370, 43XX, and 30XX systems under MVS and VSE with VSAM and CICS. IMS versions are available with either IMS/DC or CICS. There are currently over 600 installations of GENESYS software products at client sites worldwide. Software products currently available include the following:

- The GENESYS Payroll System features on-line check production; on-line calculations; self-mailer check formats; direct deposit; labor distribution; federal, state, and local taxes; net-to-gross check processing; retroactive payments; deduction arrears and recovery; automatic check reversal; automated check reconciliation; multicompany/multilocation processing; and date sensitivity. Canadian federal and provincial taxes are also supported.

- The GENESYS Human Resource System features applicant tracking, staffing, wage and salary analysis, training and development, turnover analysis, absenteeism tracking, benefits administration, government compliance, and union regulations.

- The GENESYS Defined Contribution System supports recordkeeping, calculations, and reporting for various tax qualifications as 401(k), profit sharing, money purchase, savings, and other investment plans. System features include eligibility and enrollment, election, multiple money sources, multiple investment fund choices, multiple vesting schedules, compliance testing, loan provisions and automatic repayment, non-discrimination testing, and dollar or unit/share accounting.

- The GENESYS Defines Benefits System is a pension plan administration system that supports recordkeeping; calculations; participant reports; spousal, dependant, and beneficiary data; historical data; preretirement counseling; benefits statements; benefits payments and taxation; and W-2P requirements.

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- The GENESYS Flexible Benefits System for the administration of flexible benefit programs offers eligibility and enrollment processing and confirmation statements. The system tracks medical plans, dental plans, vision plans, default benefits, employee contributions, employer contributions, spending accounts, FSA payments, dependent care and medical expenses, COBRA, death benefits, life insurance, AD&D, and disability.

- The GENESYS Human Resource Planning System is a budgeting and position control system to manage the integration of human resource planning with strategic business planning. System features include budgeting with actual vs. budgeted costs, succession planning, career management, performance tracking, position data and position tracking, requisition control, analysis of position history and prior incumbents, and reconstruction of previous reporting relationships.

Software support services include project management assistance, on-site training, technical and application support during all stages of implementation, documentation, and telephone hotline support.

The Consulting Services Division provides professional services to licensees of the company's software applications. Services include assistance with installation, implementation, conversion, additional or customized applications, fine tuning of existing systems, and the creation of internal training material.

The Data Center Division, formed in 1988, provides short-term processing to clients that are awaiting in-house implementation of GENESYS applications. This division also provides utility processing to handle any customer's overflow when they run short of computing capacity and disaster recovery services.

The Processing Services Division, formed in 1988, provides benefit processing administration services. All data entry, inquiry, and report generation is entered at the customer site, while all processing is performed at the GENESYS data center.

GENESYS has third party relationships with Digital Techniques, Inc. (for its TOUCHCOM interactive touchscreen) and TALX Corporation (for its interactive voice processing system).

Industry Markets

GENESYS derived fiscal 1990 revenue from across industry sectors.

Major clients include Acacia Mutual Life, B.P. America, Cadbury

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Schweppes Holdings Inc., Louisville Gas & Electric, Neiman-Marcus Group, Premier Bancorp Inc., and Siemens Energy & Automation.

Geographic Markets

Approximately 90% of GENESYS' fiscal 1990 revenue was derived from the U.S. The remaining 10% was derived from Canada.

GENESYS has branch offices in Atlanta (GA), Chicago (IL), Dallas (TX), Philadelphia (PA), San Francisco (CA), Stamford (CT), St. Louis (MO), and Tampa (FL).

Computer Hardware and Software

GENESYS maintains the following computers at its data center in Methuen:

- 1 Wang OIS, OIS
- 1 IBM 4381, OS, DOS, VM, IMS

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COMPANY PROFILE

GENESYS SOFTWARE SYSTEMS, INC.
Five Branch Street
Methuen, MA 01844
(617) 685-5400

Lawrence J. Munini, President
Private Corporation
Total Employees: 140
Total Revenue, Fiscal Year End 6/30/87: $10,608,800

THE COMPANY

- GENESYS Software Systems, Inc. (GENESYS), founded in 1981, provides human resource management application software products for IBM mainframe computers.

- Revenue for fiscal 1987 reached $10.6 million, a 7% increase over revenue of $9.9 million in fiscal 1986. Net income increased 53% to $421,757 in fiscal 1987 from $275,365 in fiscal 1986. A five-year financial summary follows:

GENESYS SOFTWARE SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	6/87	6/86	6/85	6/84	6/83
Revenue	$ 10,608	$ 9,942	$ 9,004	$ 6,752	$ 4,848
. Percent increase from previous year	7%	10%	33%	39%	57%
Income before taxes	$ 743	$ 437	$ 623	$ 445	$ 442
. Percent increase (decrease) from previous year	70%	(30%)	40%	1%	*
Net income	$ 422	$ 275	$ 401	$ 400	$ 357
. Percent increase (decrease) from previous year	53%	(31%)	-	12%	*

* Percent increase exceeded 1,000%.

- As of December 1987, GENESYS employed approximately 140 persons, segmented as follows:

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Marketing/sales	32
Software services/customer support	60
Computer operations	3
General and administrative	45
	140

- Major competitors include Management Science America, McCormack & Dodge (Dun & Bradstreet), and Integral Systems.

KEY PRODUCTS AND SERVICES

- One hundred percent of GENESYS' fiscal 1987 revenue was derived from human resources management application software licenses and associated support services.

- GENESYS software systems are customized according to each company clients' needs using GENESYS' program generator. GENESYS offers five application products which are available as standalone systems or can be integrated into a single system.

  - AL2000, an integrated development system, is used in all GENESYS human resources management applications.

  - The five software packages include the following:

    - Payroll Accounting provides multi-company, multi-location processing of multiple checks for salaried, hourly, and exempt hourly employees. Additional features include:

      - Concurrent federal, state, local, Canadian, and provincial taxes.
      - Automated check reconciliation.
      - Electronic check reversal.
      - Transaction logs for audit integrity.
      - Range of earnings and deductions categories.
      - Dollars and units for pay incentives including wage, step, and grade increases.
      - Table driven for easily changed calculations.
      - 401K and other negative earnings for tax sheltering.
      - Ad hoc reports and on-line inquiry.
      - Updates of government tax and payroll regulation changes.
      - General ledger interface.
      - Cost containment reporting, such as labor cost.
      - Currently, 414 packages are installed in the U.S. and 22 are installed in Canada.

    - Personnel Administration provides applicant and employee tracking. The on-line All-Screen facility enables the user to

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build, modify, and view data entry and data inquiry screens, and individual applicant or employee records on-line. The multi-lock security facility allows management to control access to each employee's personnel information. Multi-lock security can block out particular information down to a single number or letter. In addition to over 70 standard reports, the Search-All facility creates and displays customized reports on-line. The menu driven system contains information for the following functions:

- Minority tracking.
- Salary planning.
- Employee promotions.
- Performance evaluation and review.
- Union negotiation.
- Salary/benefit cost increases.
- Health and welfare.
- Manpower planning.
- Budget analysis.
- Skills inventory.
- Equal Employment Opportunity (EEO), Affirmative Action Plan (AAP), OSHA, and other government reporting.
- Currently 181 packages are installed in the U.S. and 9 are installed in Canada.

- Defined Contribution automates recordkeeping, calculation, tracking, and reporting of deferred benefits for single or multi-plan benefit programs. The package provides the following features:

  - Multiple plan accounting, including cafeteria/flexible benefits.
  - 401(k), 403(b) tracking.
  - Eligibility, transfer, withdrawal, breaks-in-service information.
  - Plan loan capability.
  - Benefit statement generator.
  - Plan analysis capabilities.
  - Automatic inception-to-date history.
  - Government compliance reporting for ERISA, TEFRA, and ERTA.
  - On-line access to plan or participant data.
  - Automated report writer for customized reports.
  - Currently, there are 13 packages installed in the U.S. and two installed in Canada.

- Defined Benefit, introduced in late 1987, automates recordkeeping, calculation, tracking, and reporting of deferred benefits for single or multi-plan benefit programs. Defined Benefit includes:

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- Retirement benefits, social security, and final-average plan salary calculation.
- Prior service detection.
- Statutory vesting calculations.
- Benefit statement generator.
- Plan analysis capabilities.
- Automatic inception-to-date history.
- Government compliance reporting for ERISA, TEFRA, and ERTA.
- On-line access to plan or participant data.
- Automated report writer for customized reports.

• Human Resource Planning, introduced in early 1987, automates succession planning, career management, incumbent tracking, position control, strategic planning and budgeting, and actual-to-budgeted comparisons.

- Currently eight packages are installed in the U.S. and two are installed in Canada.

- GENESYS' applications are compatible with IBM telecommunications and can be used in networking environments. They are compatible with IBM Graphics Data Display Manager (GDDM), an IBM color graphics package.

- GENESYS' software operates on IBM or compatible mainframes under the OS or DOS operating systems. An IMS version is also available. Pricing for a complete human resources management system (HRMS) is approximately $400,000. Individual modules range in price from $50,000 to $110,000.

• The initial license fee includes unlimited training during the first year, with classes held at the client's site and at GENESYS headquarters.

• Software updates are included during the first year of software use and maintenance contracts are available to all clients.

- Maintenance services include regional on-site and telephone support and 24-hour hotline telephone support. Through GENESYS Automatic Information Distribution System (GENAIDS), GENESYS telecommunicates updates, enhancements, and regulatory changes to users. Clients also receive the GENESYS Software Letter newsletter.

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INDUSTRY MARKETS

- GENESYS derived fiscal 1987 revenue from across all industry sectors.
- Major clients include Allergan Corporation, B.P. of America (formerly Standard Oil), Louisville Gas & Electric, Pillsbury Company, and Texas Instruments.

GEOGRAPHIC MARKETS

- Approximately 90% of fiscal 1987 revenue was derived from the U.S. The remaining 10% was derived from Canada.
- GENESYS has branch offices in Long Beach (CA), Atlanta, Oak Brook (IL), Hackensack (NJ), Dallas, and Toronto (Canada).

COMPUTER HARDWARE AND SOFTWARE

- GENESYS maintains the following equipment:
  - 1 Wang OIS, OIS.
  - 1 IBM 4381, OS, DOS, VM, IMS.

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COMPANY PROFILE

GENESYS SOFTWARE SYSTEMS, INC.
20 Ballard Way
Lawrence, MA 01843
(617) 685-5400

Larry Munini, President
Private Corporation
Total Employees: 125
Total Revenue, Fiscal Year End 6/30/86: $9,942,447

THE COMPANY

- GENESYS, founded in 1981, provides human resource management application software products for IBM mainframes.

- Revenue for fiscal 1986 reached $9.9 million, a 10% increase over revenue of $9 million in fiscal 1985. Net income declined 31% from $400,772 in fiscal 1985 to $275,365 in fiscal 1986. A five-year financial summary follows:

GENESYS SOFTWARE SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands)

FISCAL YEAR / ITEM	6/86	6/85	6/84	6/83	6/82
Revenue	$ 9,942	$ 9,004	$ 6,752	$ 4,848	$ 3,096
. Percent increase from previous year	10%	33%	39%	57%	N/A
Income before taxes	$ 437	$ 623	$ 445	$ 442	$ 15
. Percent increase (decrease) from previous year	(30%)	40%	1%	*	N/A
Net income	$ 275	$ 401	$ 400	$ 357	$ 15
. Percent increase (decrease) from previous year	31%	-	12%	*	N/A

*Percent increase exceeded 1,000%

- As of June 30, 1986, GENESYS had approximately 125 employees, segmented as follows:

Marketing/sales	22
Software services/customer support	80
Computer operations	3
General and administrative	20
	125

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- Major competitors include Management Science America, McCormack and Dodge (Dun & Bradstreet), and Integral Systems.

KEY PRODUCTS AND SERVICES

- All of GENESYS' fiscal 1986 revenue was derived from human resources management application software licenses and associated support services.

- GENESYS software systems are customized according to each company client's needs using GENESYS's program generator. GENESYS offers three application products as standalone systems or integrated into a single system.

  - The three software products available include the following:

    . Payroll Accounting provides multi-company, multi-location processing of multiple checks for salaried, hourly, and exempt hourly employees. Additional features include:

      - Concurrent federal, state, local, Canadian, and provincial taxes.
      - Automated check reconciliation.
      - Electronic check reversal.
      - Transaction logs for audit integrity.
      - Range of earnings and deductions categories.
      - Dollars and units for pay incentives including wage, step, and grade increases.
      - Table driven for easily changed calculations.
      - 401K and other negative earnings for tax sheltering.
      - Ad hoc reports and on-line inquiry.
      - Updates of government tax and payroll regulation changes.
      - General ledger interface.
      - Cost containment reporting such as labor cost.

    . Personnel Administration provides applicant and employee tracking. The on-line All-Screen facility enables the user to build, modify, and view data entry and data inquiry screens, and individual applicant or employee records on-line. The multi-lock security facility allows management to control access to each employee's personnel information. Multi-lock security can block out particular information down to a single number or letter. In addition to over 70 standard reports, the Search-All facility creates and displays customized reports on-line. The menu driven system contains information for the following functions:

      - Minority tracking.
      - Salary planning.
      - Employee promotions.
      - Performance evaluation and review.
      - Union negotiation.

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- Salary/benefit cost increases.
- Health and welfare.
- Manpower planning.
- Budget analysis.
- Skills inventory.
- Equal Employment Opportunity (EEO), Affirmative Action Plan (AAP), OSHA, and other government reporting.

. Benefits Management automates recordkeeping, calculation, tracking, and reporting of deferred benefits for single- or multi-plan benefit programs for single or multi-division companies. The system also provides the following features:

- Multiple plan accounting including cafeteria/flexible benefits.
- Retirement benefit, social security, and final-average-plan salary calculation.
- Prior service detection.
- 401K tracking.
- Payroll and actuarial interface files.
- Benefit statement generator.
- Plan analysis capabilities.
- Automatic inception-to-date history.
- Government compliance reporting for ERISA, TEFRA, and ERTA.
- On-line access to plan or participant data.
- Automated report writer for customized reports.

- GENESYS applications are compatible with IBM telecommunications and can be used in networking environments. They are compatible with IBM Graphics Data Display Manager (GDDM), an IBM color graphics package.

- GENESYS' software operates on IBM or compatible mainframes under the OS or DOS operating systems. Pricing for a complete human resources management system (HRMS) is approximately $300,000. Individual modules range in price from $50,000 to $110,000.

. The initial license fee includes unlimited training during the first year, with classes held at the client's site and at GENESYS headquarters.

. Software updates are included during the first year of software use and maintenance contracts are available to all clients.

- Maintenance services include regional on-site and telephone support and 24-hour hotline telephone support. Through GENESYS Automatic Information Distribution System (GENAIDS), GENESYS telecom-

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municates updates, enhancements, and regulatory changes to users. Clients also receive the GENESYS Software Letter newsletter.

- Currently, there are 450 clients representing 1,125 applications.

INDUSTRY MARKETS

- GENESYS derived fiscal 1986 revenue from across all industry sectors.

GEOGRAPHIC MARKETS

- Approximately 90% of fiscal 1986 revenue was derived from the U.S. The remaining 10% was derived from Canada.
- GENESYS maintains offices in Burlingame and Long Beach (CA), Altamonte Springs (FL), Atlanta, Oak Brook (IL), Hackensack and Marlton (NJ), Columbus (OH), and Dallas and Houston.

COMPUTER HARDWARE AND SOFTWARE

- GENESYS maintains the following equipment:
  - 1 Wang OIS, OIS.
  - 1 IBM 4381, OS, DOS, VM, IMS.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

April 1996

The Genix Group

President & CEO: Rudolfo D. Cifolelli
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Dearborn, MI 48126-2607
Phone: (313) 337-4800
(800) 521-0444
Fax: (313) 337-4897
Internet: Http://www.genix.com
E-mail: info@genix.com

The Genix Group

Status:	Wholly Owned Subsidiary
Parent:	MCN Corporation
Employees:	450
Revenue:	$105,000,000
Fiscal Year End:	12/31/95

Key Points

- The Genix Group's strategy is to achieve total customer satisfaction through cooperative long-term relationships in which Genix provides information technology services that support a customer's business requirements.
- In April 1996, Genix's parent, MCN Corporation, announced that it is evaluating the potential sale of Genix. MCN intends to pursue its focused strategy of investing in energy-related projects and is evaluating the strategic fit of its investment in the computer services business. For MCN, a possible sale of Genix will unlock its full value, thereby enhancing shareholder value.
- During 1995, Genix added 10 companies to its client base of more than 100, which includes 13 Fortune 500 industrial corporations.
- During the first quarter of 1996, Genix implemented the first phase of a major

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mainframe technology upgrade. Computers based on IBM's new CMOS technology and RAID storage technology were installed in Genix data centers.

- During 1995, Genix took significant steps to bring more value through business alliances with leading information technology product and service suppliers, including Computer Associates, Hewlett-Packard and Comdisco.

- Genix installed a Web site during the fourth quarter of 1995. The site is best viewed using Netscape Navigator version 1.1 or higher.

Company Description

The Genix Group's primary service offerings include computer operations, telecommunications network design and management, desktop services, applications management, business process solutions, and computer-generated electronic printing, mailing, telemarketing and fulfillment services.

Genix is owned by MCN Corporation, a $1.58 billion Detroit-based corporation listed on the New York Stock Exchange (under MCN).

Company History

The Genix Group was formed by the consolidation of the computer operations business of Genix Corporation and the computer operations, electronic printing, fulfillment and telecommunications services of MCN Computer Services, Inc.

- MCN Computer Services was initially formed in 1983 to provide computer operations services to MichCon, an MCN subsidiary and natural gas distribution company, and to pursue nonaffiliated customers. It became a separate subsidiary in 1989.

- Genix Corporation, based in Pittsburgh (PA), was formed in 1984 when National Intergroup consolidated its internal data processing operations into a separate subsidiary providing remote processing services to medium-to-large corporations and National Intergroup affiliates.

- In June 1990, MCN Corporation, which owned MCN Computer Services, Inc., agreed to buy Genix Corporation, thus enhancing MCN's outsourcing strength and market position.

Organization and Structure

Genix customers are served by four operations groups—in Michigan, Pennsylvania, North Carolina and the United Kingdom—and by technology support groups for telecommunications, software and technical support, desktop services, and applications management services.

The general managers of the Michigan, Pennsylvania, North Carolina, and United Kingdom operations carry total responsibility for customer satisfaction and have full profit and loss responsibility for their facilities. They rely on the support groups to provide specific design and implementation services. The general managers operate their respective facilities and manage customer relationships.

In addition to its 70,000-square-foot headquarters in Dearborn (MI), Genix has a 68,000-square-foot mailing, fulfillment and telemarketing facility in Southgate (MI), a 97,000-square-foot computing facility in Pittsburgh (PA), a 10,000-square-foot printing and vault storage facility in Moon Township (PA), a 34,000-square-foot

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computing facility in Charlotte (NC), and a 6,000-square-foot computing facility in London (U.K.).

Company Strategy

The Genix Group's growth strategy remains focused on delivering quality information technology solutions to its customers.

- Genix expects customer needs to change and to facilitate such change through joint technology planning. Working with its customers, Genix operates a wide variety of platforms, manages SNA and alternative wide-area networks (WANs) and provides LAN, desktop, and application support services.
- Genix will continue to participate in its customers' strategies, help develop solutions that support those strategies, and operate the solutions it designs.
- By accepting the operational responsibility for its customers' computer systems, Genix accepts the business risk with its customers.

Financials

Genix's 1995 revenue reached $105 million, a 19% increase over 1994 revenue of $88 million.

- New contract revenues exceeded $20 million in 1995.
- Revenue growth in 1995 was also attributed to significantly increased demand for computer operations and network services from current Genix customers.
- The company expects 1996 revenue growth to exceed 1995 levels as requirements from new and current customers expand, especially services provided by the two new Genix data centers serving Europe, the United Kingdom and the southeastern U.S.

Since becoming a separate business in 1989 with $23 million in revenue, Genix's revenue and customer base have increased five-fold to more than 100 customers and $105 millionin revenue. This growth has enabled Genix to diversify its customer base. Thirty-one customers now provide about 80% of Genix's revenue, compared to only five in 1989.

Revenue Analysis by Product/Service

Approximately 80% of Genix's revenues are generated from computer operations management (systems operations) and 20% from network design and management services and other services, including desktop services applications management, electronic printing, direct mail, telemarketing, and business process solutions. A summary of Genix's outsourcing revenue growth follows:

Genix Outsourcing Revenue Growth

	Growth '94-'95	Projected Growth '95-'96
Platform operations	13%	20%
Network design/mgmt.	20%	20%
Desktop services	15%	5%
Application mgmt.	5%	5%
Other services	10%	10%
Total Outsourcing	**15%**	**19%**

Market Financials

Approximately 40% of Genix's customers are from the manufacturing industry, 40% from the services industry, and 20% from miscellaneous SIC code industries.

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- The most significant manufacturing industry served is the steel industry. Allegheny Ludlum, Copperweld, Wheeling-Pittsburgh Steel, and Armco AMD are clients.

- Other manufacturing industries served include food processing, chemical, plumbing fixtures, automotive components, glass, publishing, and tobacco.

- In the services sector, Genix clients include advertising, financial services, insurance, health care, and transportation companies.

- In addition, Genix serves the needs of software developers, educational institutions, and local governments.

Geographic Markets

More than 90% of Genix's 1995 revenue was derived from U.S.-based firms. Genix supports these customers with requirements that reach from Europe to the Far East.

Key Products and Services

Genix adds value to its computer operations services by reengineering and managing clients' networks, taking advantage of new technology in the areas of processing, telecommunications, and network monitoring and control. Genix's custom consulting on applications and technology plans also adds value to its services.

- Genix-operated mainframes and midrange computers are generally owned by Genix.

- Contracts generally range from three to seven years and are priced based upon information system resource utilization.

- The company provides complete desktop services.

- Genix has engineered, implemented and now manages wide-area networks (WANs) for many of its customers. Genix also offers local-area network (LAN) management and desktop support services.

- Genix operates telemarketing information centers and provides product fulfillment services for customers. Genix designs the process, develops the supporting systems and operates the business function through a service Genix calls "Business Process Solutions."

Computer Hardware and Software

Genix's data centers have IBM and Hitachi Data Systems equipment installed using MVS, VM, VSE, and DOS operating systems. Genix employs the latest IBM ES/9000 and CMOS technologies.

Genix operates Digital, Hewlett-Packard, Tandem, Concurrent, IBM AS/400, and RISC computers.

Genix uses current DASD and automated tape storage equipment.

During the first quarter of 1996, Genix implemented the first phase of a major mainframe technology upgrade. Computers based on IBM's new CMOS technology were installed. CMOS machines occupy a fraction of the floor space and are more energy efficient than earlier generation IBM technology.

During 1995, Genix installed approximately four terabytes of RAID storage technology and nine robotic tape-handling silos. Currently, more than half of the traditional IBM computing capacity is delivered through ES/9000 technology.

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Clients

Genix provides services to more than 100 clients.

Genix has long prided itself on its flexibility and ability to service diverse industries. Recent new contracts have introduced Genix to the entertainment, health care services, consumer products, and natural resources industries, as well as government.

- Genix has signed multiyear agreements to provide computer services to General Cinema Theatres, a Boston-based manager of movie theaters. This is Genix's first client in the theatre/entertainment industry.

- Genix signed a third-party agreement with Shared Medical Systems Corporation (SMS), a health care computer services provider based in Malvern (PA). Through this contract with SMS, Genix will provide computer operations management, printing and mailing services to SMS' client, Fairview Health Systems of Cleveland (OH). This contract is the first for Genix in the health care services industry.

- The Genix Group Limited, Genix's U.K.-based subsidiary, signed a multiyear agreement with the Lord Chancellor's Department of England (LCD) to provide VM/ESA processing services. The LCD administers the judicial system of England. This is Genix Group Limited's first Europe-based IBM mainframe environment customer.

- A large government unit, Wayne County (MI), migrated into a Genix data center in November 1995. Genix signed a multiyear contract to provide computer operations management and telecommunications support services for Wayne County's IBM MVS IDMS applications, which include financial and administrative systems. Although Genix provided services to the State of Michigan, this is Genix's first county government contract.

- Also in November 1995, Genix signed a multiyear transitional agreement with Clark Refining & Marketing, Inc., the largest independent refiner and marketer in the U.S. Genix will provide Clark with computer operations management while Clark transitions to a distributed computing environment.

- In May 1995, Genix signed a multiyear contract with another company in the natural resources industry—Dravo Corporation. Genix provides Dravo with computer operations management and network management services. Dravo is the largest publicly owned lime producer in the U.S.

- In August 1995, Genix began providing computer operations management and electronic printing services to Handleman Company, which is North America's largest supplier and merchandiser of music, video, books and personal computer software to retail chains. Genix also provides support for AS/400s located across the U.S., Canada, and Mexico in Handleman distribution centers, as well as the printing of more than 2.2 million pages of documents each month. In the spring of 1996, Genix was awarded a multiyear facilities management contract to operate Handleman's Retail Inventory Management System (RIMS).

Other contract examples include the following:

- In July 1995, Crain Communications, a privately held company that publishes 26

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consumer, business and trade publications, signed a contract with Genix, whereby Genix will operate Crain's IBM mainframe environment while the company transitions to a UNIX platform.

- Genix also provides services to two newspaper publishers—*New York Daily News* and Scripps Howard.

- In April 1995, Genix, along with alliance partners CAP GEMINI AMERICA and I-Net, won a $100 million outsourcing contract from Ralcorp Holdings. Ralcorp is a major player in the food industry, with brands that include Chex and Cookie Crisp cereals and Beech-Nut baby food. Under the terms of the contract, Genix will direct Ralcorp's data processing activities.

- In early January 1995, the Remington Arms Company, Inc. of Wilmington (DE) signed a multiyear contract valued at more than $5 million. A move to client/server technology prompted Remington's decision to outsource all non-core functions, such as network management and the operation of its Hewlett-Packard HP 9000 client/server platform, to Genix. Genix will support Remington's transition to SAP's R3 applications systems and install the network infrastructure to support the application across Remington's operations.

- In November 1994, The Earle M. Jorgensen Company of Brea (CA) signed a multiyear, $11.5 million contract. Genix acquired and now operates a large DEC computer installation in its Pittsburgh (PA) facility. Genix supports the main computer applications for three Jorgensen company divisions, which entails servicing more than 42 locations throughout North America and the United Kingdom.

- In July 1994, Genix announced a contract extension with Comshare Inc. to manage Comshare's international U.S. desktop environments, as well as Comshare's international data network. The Genix outsourcing agreement with Comshare also includes mainframe service for an additional three years.

- In July 1994, Genix also announced an outsourcing contract with Royal Insurance of Charlotte (NC). In this agreement, Genix will provide systems operations management, network management for Royal's voice and data networks and management for Royal's electronic printing service. In addition, Genix is leasing Royal's data center for the purpose of providing outsourcing services to other firms.

- In mid-1993, The Trane Company signed a multiyear, $14 million contract. Genix provides two divisions—Trane in Tyler (TX) and Trane in LaCrosse (WI)—with computer operations services. Genix also provides processing services to Trane's parent company, American Standard.

- During the second quarter of 1993, Borden awarded Genix a multiyear contract for all of Borden's U.S. mainframe systems operations requirements. The contract was expanded in 1995 to include disaster recovery through a third-party supplier. Wise Foods, a division of Borden, became a Genix customer in 1996.

- In 1993, Genix signed a multiyear contract with U.T. Automotive (UTA) to provide computer operations management, electronic printing and microfiche. Disaster recovery services are covered under a third-party agreement.

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- In August 1992, Genix signed a multiyear contract with Wheeling-Pittsburgh Steel Corporation to reengineer and manage Wheeling-Pittsburgh's voice and data networks. Genix now provides Wheeling-Pittsburgh with printing services.

- In 1992, Armco AMD in Butler (PA) signed a contract with Genix. Genix provides facilities management services for Digital computers and computer operations for Armco's IBM MVS environment. The contract was expanded in 1995 to include the management of two AS/400s.

- Genix has been providing computer operations services to Copperweld Corporation since 1985. Copperweld is a Pittsburgh-based steel tube maker. Copperweld uses Genix facilities for IBM mainframe and Tandem computer operations. The Copperweld contract was renewed in 1993 for the third time.

- In June 1989, Genix was awarded a multiyear, $15 million contract from H.J. Heinz, a $7 billion food company, to provide computer operations and telecommunications network services. The contract was renewed in 1995.

  - Genix consolidated five data centers to a single platform at its Pittsburgh data center. Genix converted all Heinz affiliates to a common MVS/ESA platform.

- Genix continues to provide computer operations, telecommunications and printing services to MichCon, the largest natural gas distribution company in Michigan.

- Magic Line has been a customer of Genix since April 1985. Magic Line is a privately held corporation owned by a consortium of the largest banks in Michigan. With Genix operating Magic Line's Concurrent computers, Magic Line processes more than seven million transactions per month.

Marketing and Sales

Genix markets its services through direct sales forces located in Dearborn (MI), Pittsburgh (PA), Charlotte (NC), Fairfield (CT), Atlanta (GA), St. Louis (MO), and London (U.K.).

Alliances

In April 1995, Genix signed a landmark 10-year software license agreement with Computer Associates International, Inc. (CA). As part of the agreement, Genix became an authorized reseller of CA's Systems Management, Information Management and Business Applications products, including CA-Unicenter and Masterpiece/2000 financial software products.

Genix is a value-added reseller of Hewlett-Packard computers to help support customers' transition to UNIX processing environments.

During 1995, Genix's alliance with Comdisco, a leading disaster recovery services firm, was expanded to cover midrange and UNIX environments.

Competitive Position

Genix is a traditional data center outsourcing company that prides itself on its flexibility. It charges clients based upon resource utilization and more than 80% of its outsourcing business is generated through platform operations contracts.

As with other major outsourcing vendors, Genix is experiencing a surge of activity

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around client/server migrations and resultant transition outsourcing demand.

- Currently, 20% of Genix's contracts involve transition outsourcing and this percentage is projected to increase.

- Contracts with the Earle M. Jorgensen Company and Remington Arms display Genix's ability to manage non-IBM platforms and to assist customers with their transitions to client/server technology.

Genix perceives its competition to be Computer Sciences Corporation (CSC), Electronic Data Systems (EDS), and IBM Integrated Systems Solutions Corporation (ISSC).

- In addition, Genix competes with other traditional data center outsourcing vendors such as Affiliated Computer Systems, May & Speh, and Origin/Philips C&P (formerly Power Computing Company).

- By providing mainframe-oriented, cost-based computer operation services, Genix is more aligned with the second group than the first.

- The Comshare, Remington and Jorgensen contracts may start to provide Genix with differentiation from the second tier of vendors.

INPUT Assessment

The Genix Group's success is demonstrated by the satisfaction of its customers. Genix surveys its customers on an annual basis to measure satisfaction levels. Genix's approach is to help its customers evolve their strategies, not dictate what the strategies should be.

Genix's move to client/server services is positive—the key is implementation. Within its customer base, Genix is participating in the transition from traditional mainframes to midrange platforms, the movement to client/server and the development of IT strategies that retain the mainframe as the dominant processor.

A key challenge for Genix is to move from traditional data center outsourcing to providing added value through business knowledge and/or applications knowledge.

- Data center outsourcing (selling MIPs) is a cost-based business subject to margin squeezes due to severe price competition.

- The key to higher margins is through value-added services.

- As Genix moves from its traditional data center arena, it will be tested by new competitive strategies. Pricing can no longer be solely tied to resource utilization. An element of risk in the pricing structure will be required if Genix plans to compete with the first-tier outsourcing vendors (CSC, EDS and ISSC).

This is the start of a new phase of Genix's growth. How effectively it can provide and market value-based outsourcing services will determine if it can successfully move into the top echelon of outsourcing providers.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

February 1995

The Genix Group

President & CEO: Rudolfo D. Cifolelli
5225 Auto Club Drive
Dearborn, MI 48126-2607
Phone: (313) 337-4800
(800) 521-0444
Fax: (313) 337-4897

Status:	Wholly Owned Subsidiary
Parent:	MCN Corporation
Employees:	400
Revenue:	$88,000,000
Fiscal Year End:	12/31/94

Key Points

- The Genix Group's strategy is to achieve total customer satisfaction through cooperative long-term relationships in which Genix provides information technology services that support a customer's business requirements.
- During 1994, Genix added six companies to its client base of more than 100, which includes 16 Fortune 500 industrial corporations.
- In 1994, all Genix customers with expiring contracts renewed.
- In July 1994, Genix formed The Genix Group Limited in London (England), establishing a fourth computing center to serve customers in the U.K. and Europe.
- In July 1994, Genix established a data center in Charlotte (NC) under an extended-term contract with Royal Insurance.

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Company Description

The Genix Group's primary service offerings include computer operations, telecommunications network design and management, desktop services, applications management, business process solutions and computer-generated electronic printing, mailing, telemarketing and fulfillment services.

Genix is owned by MCN Corporation, a $1.57 billion Detroit-based corporation listed on the New York Stock Exchange (MCN).

Company History

The Genix Group was formed by the consolidation of the computer operations business of Genix Corporation and the computer operations, electronic printing, fulfillment and telecommunications services of MCN Computer Services, Inc.

- MCN Computer Services was initially formed in 1983 to provide computer operations services to MichCon, an MCN subsidiary and natural gas distribution company, and to pursue nonaffiliated customers. It became a separate subsidiary in 1989.

- Genix Corporation, based in Pittsburgh (PA), was formed in 1984 when National Intergroup consolidated its internal data processing operations into a separate subsidiary providing remote processing services to medium-to-large corporations and National Intergroup affiliates.

- In June 1990, MCN Corporation, which owned MCN Computer Services, Inc., agreed to buy Genix Corporation, thus enhancing MCN's outsourcing strength and market position.

Organization and Structure

Genix customers are served by four operations groups—Michigan, Pennsylvania, North Carolina and the United Kingdom—and by technology support groups for telecommunications, software and technical support, desktop services and applications management services.

The general managers of Michigan, Pennsylvania, North Carolina and the United Kingdom operations carry total responsibility for customer satisfaction. They rely on the support groups to provide specific design and implementation services. The general managers operate their respective facilities and manage customer relationships.

In addition to its 70,000 square foot headquarters in Dearborn (MI), Genix has a 68,000 square foot mailing, fullfillment and telemarketing facility in Southgate (MI), a 97,000 square foot computing facility in Pittsburgh (PA), a 10,000 square foot printing and vault storage facility in Moon Township (PA), a 34,000 square foot computing facility in Charlotte (NC) and a 6,000 square foot computing facility in London (UK).

Company Strategy

The Genix Group's growth strategy remains focused on delivering quality information technology solutions for its customers.

- Genix expects customer needs to change and to facilitate these changes through joint technology planning. Working with its customers, Genix operates a wide variety of platforms, manages SNA and alternative wide-area networks (WANs) and provides LAN, desktop and application support services.

- Genix will continue to participate in its customer's strategies, help develop solutions that support those strategies and operate the solutions it designs.

- By accepting the operational responsibility for its customer's computer systems, Genix accepts the business risk with its customers.

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Financials

Genix's 1994 revenue reached $88 million, a 19% increase over 1993 revenue of $74 million.

- New contract revenues exceeded $20 million in 1994 and positioned Genix to exceed $100 million in revenues in 1995.
- Revenue growth in 1994 was also attributed to significantly increased demand for computer operations and network services from current Genix customers.
- The company expects 1995 revenue growth to exceed 1994 levels as requirements from new and current customers expand, especially services provided by the two new Genix data centers serving Europe, the United Kingdom and the southeastern U.S.

Since becoming a separate business in 1989 with $23 million in revenue, Genix's revenue and customer base have increased five-fold to more than 100 customers and $100 million in annualized revenue. This growth has enabled Genix to diversify its customer base. Thirty-one customers now provide about 80% of Genix's revenue, compared to only five in 1989.

Revenue Analysis by Product/Service:

Approximately 79% of Genix's revenues are generated from computer operations management (systems operations), 12% from network design and management services and the remainder from other services, including desktop services applications management, electronic printing, direct mail, telemarketing and fulfillment.

A summary of Genix's outsourcing revenue growth follows:

Genix Outsourcing Revenue Growth

	Growth '93-'94	Projected Growth '94-'95
Platform operations	13%	13%
Network design/mgmt.	10%	20%
Desktop services	N/A	15%
Application mgmt.	5%	5%
Other services	10%	10%
Total Outsourcing	**19%**	**15%**

Market Financials

Approximately 42% of Genix's customers are from the manufacturing industry, 39% from the services industry and 19% from miscellaneous SIC codes.

- The most significant manufacturing industry served is the steel industry. The Earle M. Jorgensen Company, Allegheny Ludlum, Copperweld, Wheeling-Pittsburgh Steel and Armco AMD are clients.
- Other manufacturing industries served include food processing, chemical, plumbing fixtures, automotive components, glass, publishing and tobacco.
- In the services sector, Genix clients include advertising, financial services, insurance, health care and transportation companies.
- In addition, Genix serves the needs of software developers, educational institutions and state governments.

Geographic Markets

More than 90% of Genix's 1994 revenue was derived from U.S.-based firms. Genix supports these customers with requirements that reach from Europe to the Far East.

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Key Products and Services

Genix adds value to its computer operations services by re-engineering and managing client's networks, taking advantage of new technology in the areas of processing, telecommunications, and network monitoring and control. Genix's custom consulting on applications and technology plans also adds value to Genix services.

- Genix-operated mainframes are generally owned by Genix.
- Contracts generally range from three to seven years and are priced based upon information system resource utilization.
- Genix operates midrange computers for many of its computer operations customers.
- The company provides complete desktop services.
- Genix has engineered, implemented and now manages wide-area networks (WANs) for many of its customers. Genix also offers local-area network (LAN) management and desktop support services.
- Genix operates telemarkcting information centers and provides product fulfillment services for customers. Genix designs the process, develops the supporting systems and operates the business function.

Computer Hardware and Software

Genix's data centers have IBM, Amdahl and Hitachi Data Systems equipment installed using MVS, VM, VSE and DOS operating systems. Genix employs the latest IBM ES/9000 technology.

Genix operates DEC, Hewlett-Packard, Tandem, Concurrent, IBM AS/400 and RISC computers. In fact, 41% of Genix's total processing power is non-IBM or non-mainframe, up from 27% in 1993.

Genix uses current DASD and automated tape storage equipment.

Clients

Genix provides services to more than 100 clients. Examples of current contracts include the following:

- In early January 1995, the Remington Arms Company, Inc. of Wilmington (DE) signed a five-year contract valued at more than $5 million. A move to client/server technology prompted Remington's decision to outsource all non-core functions, such as network management and the operation of their Hewlett-Packard HP 9000 client/server platform, to Genix. Genix will support Remington's transition to SAP's R3 applications systems and install the network infrastructure to support the application across Remington's operations.
- In November 1994, The Earle M. Jorgensen Company of Brea (CA) signed a five-year, $11.5 million contract. Genix acquired and now operates a large DEC computer installation in its Pittsburgh (PA) facility. Genix supports the main computer applications for three Jorgensen company divisions, which entails servicing more than 42 locations throughout North America and the United Kingdom.
- In July 1994, Genix announced a contract extension with Comshare Inc. to manage Comshare's international U.S. desktop environments as well as Comshare's international data network. The Genix outsourcing agreement with Comshare also includes mainframe service for an additional three years.
- In July 1994, Genix also announced an outsourcing contract with Royal Insurance of Charlotte (NC). In this agreement, Genix will provide systems operations management, network management for Royal's voice and data networks and management for Royal's electronic printing service. In addition, Genix is leasing Royal's data center for the purpose of providing outsourcing services to other firms.

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- In mid-1993, The Trane Company signed a three-year, $14 million contract. Genix provides two divisions—Trane in Tyler (TX) and Trane in LaCrosse (WI)—with computer operations services. Genix also provides processing services to Trane's parent company, American Standard.

- During the second quarter of 1993, Borden awarded Genix a 5-1/2 year contract for all of Borden's U.S. mainframe systems operations requirements. This contract is valued at over $12 million.

- In 1993, Genix signed a five-year $14.5 million contract with U.T. Automotive (UTA) to provide computer operations management, electronic printing and microfiche. Disaster recovery services are covered under a third-party agreement.

- During the second quarter of 1992, Genix signed a contract with Scripps Howard, a newspaper publisher, for computer operations services.

- Late in 1992, a multiyear contract was signed to provide computer operations services to the New York Daily News. The New York Daily News is the second newspaper publisher signed as a Genix client.

- In August 1992, Genix signed a multiyear contract with Wheeling-Pittsburgh Steel Corporation to re-engineer and manage Wheeling-Pittsburgh's voice and data networks. Genix now provides Wheeling-Pittsburgh with printing services.

- In 1992, Armco AMD in Butler (PA) signed a contract with Genix. Genix is providing facilities management services for DEC computers and computer operations for their IBM MVS environment.

- Genix has been providing computer operations services to Copperweld Corporation since 1985. Copperweld is a Pittsburgh-based steel tube maker. Copperweld uses Genix facilities for IBM mainframe and Tandem computer operations. The Copperweld contract was renewed in 1992 for the second time.

- In June 1989, Genix was awarded a three-year, $15 million contract from H.J. Heinz, a $7 billion food company, to provide computer operations and telecommunications network services. The contract was renewed in 1992.

  - Genix consolidated five data centers to a single platform at its Pittsburgh data center. And during 1992, Genix converted all Heinz affiliates to a common MVS/XA platform.

  - Genix assisted Heinz with the installation of a T1 voice and data network and an AT&T SDN voice network linking Heinz' five U.S. divisions.

- Genix continues to provide computer operations, telecommunications and printing services to its sister company, MichCon, the largest natural gas distribution company in Michigan.

- Magic Line has been a customer of Genix since April 1985. Magic Line is a privately held corporation owned by a consortium of the largest banks in Michigan. With Genix operating Magic Line's Concurrent computers, Magic Line processes more than seven million transactions per month.

Marketing and Sales

Genix markets its services through a direct sales force located in Dearborn (MI), Pittsburgh (PA), Charlotte (NC), Fairfield (CT), Chicago (IL) and London (U.K.).

Competitive Position

Genix is a traditional data center outsourcing company that prides itself on its flexibility. It charges clients based upon resource utilization and more than 80% of its outsourcing business is generated through platform operations contracts.

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As with other major outsourcing vendors, Genix is experiencing a surge of activity around client/server migrations and resultant transition outsourcing demand.

- Currently, 20% of Genix's contracts involve transition outsourcing and this percentage is projected to increase.
- One example of this is Genix's recent contract extension with Comshare where Genix will manage Comshare's U.S. and international desktop and client/server environments. This is Genix's first international outsourcing contract.
- Contracts with the Earle M. Jorgensen Company and Remington Arms also display Genix's ability to manage non-IBM platforms and to assist customers with their transitions to client/server technology.

Genix perceives its competition to be Computer Sciences Corporation (CSC), Electronic Data Systems (EDS) and IBM Integrated Systems Solutions Corporation (ISSC).

- In addition, Genix competes with other traditional data center outsourcing vendors such as Affiliated Computer Systems, May & Speh and Power Computing Company.
- By providing mainframe-oriented, cost-based computer operation services, Genix is more aligned with the second group than the first.
- The Comshare, Remington and Jorgensen contracts may start to provide Genix with differentiation from the second tier of vendors.

INPUT Assessment

The Genix Group's success is demonstrated by the satisfaction of its customers. Genix surveys its customers on an annual basis to measure satisfaction levels. Genix's approach is to help its customers evolve their strategies, not dictate what the strategies should be.

Genix's planned move to client/server is positive—the key is implementation. Within its customer base, Genix is participating in the transition from traditional mainframes to midrange platforms, the movement to client/server and the development of IT strategies that retain the mainframe as the dominant processor.

A key challenge for Genix is to move from traditional data center outsourcing to providing added value through business knowledge and/or applications knowledge.

- Data center outsourcing (selling MIPs) is a cost-based business subject to margin squeezes due to severe price competition.
- The key to higher margins is through value-added services.
- Genix has started its move towards higher value services with the Comshare contract extension, moving the company into the desktop services and international network management markets.
- As Genix moves from its traditional data center arena, it will be tested by new competitive strategies. Pricing can no longer be solely tied to resource utilization. An element of risk in the pricing structure will be required if Genix plans to compete with the first tier outsourcing vendors (CSC, EDS and ISSC).

This is the start of a new phase of Genix's growth. How effectively it can provide and market value-based outsourcing services will determine if it can successfully move into the top echelon of outsourcing providers.

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COMPANY
PROFILE

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Fax: (313) 337-4897

One Marquis Plaza
5315 Campbell's Run Road
Pittsburgh, PA 15205-9002
Phone: (412) 788-3800
Fax: (412) 788-3507

President:	Rudolfo D. Cifolelli
Status:	Wholly Owned Subsidiary
Parent:	MCN Corporation
Total Employees:	400
Total Revenue:	$74,000,000
Fiscal Year End:	12/31/93

Key Points

- The Genix Group's strategy is to achieve total customer satisfaction through cooperative long-term relationships in which Genix provides information technology services that support a customer's business requirements.
- During 1993, Genix added more than 10 companies to its client list, increasing its client base to more than 100, including 15 Fortune 500 industrial corporations.
- In 1993, all Genix customers with expiring contracts renewed.
- In May 1993, Genix's telemarketing operations and their warehouse/distribution/fulfillment services moved into a 40,500 square foot facility in Southgate (MI).
- In August 1993, Genix held its second annual Client Symposium, "A Focus on Quality." The symposium is the first of its kind in the industry and is based entirely on customer input. A third Client Symposium is slated for August 1994.

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Company Description

The Genix Group's primary service offerings include computer operations, telecommunications network design and operations, applications management, business process solutions and computer-generated electronic printing, mailing and fulfillment services.

Genix is owned by MCN Corporation, a $1.4 billion Detroit-based corporation listed on the New York Stock Exchange (MCN).

Company History

The Genix Group was formed in 1990 with the consolidation of the computer operations business of Genix Corporation and the computer operations, electronic printing, fulfillment and telecommunications services of MCN Computer Services, Inc.

- MCN Computer Services was initially formed in 1983 to provide computer operations services to MichCon, an MCN subsidiary and natural gas distribution company, and to pursue nonaffiliated customers. It became a separate subsidiary in 1989.
- Genix Corporation, based in Pittsburgh (PA), was formed in 1984 when National Intergroup consolidated its internal data processing operations into a separate subsidiary providing remote processing services to medium-to-large corporations and National Intergroup affiliates.
- In June 1990, MCN Corporation, which owned MCN Computer Services, Inc., agreed to buy Genix Corporation, thus enhancing MCN's outsourcing strength and market position.

Strategy

The Genix Group's growth strategy remains focused on delivering quality information technology solutions for its customers.

- Genix expects customers to change and to facilitate these changes through joint technology planning. Working with its customers, Genix now operates a wide variety of platforms, manages SNA and alternative wide-area networks (WANs) and provides LAN, desktop and application support services.
- Genix will continue to participate in its customer's strategies, help develop solutions that support those strategies and operate the solutions it designs.
- By accepting the operational responsibility, Genix accepts the business risk with its customers.

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Financials

Genix's 1993 revenue reached $74 million, an 8.8% increase over 1992 revenue of $68 million.

- Annualized revenue that will result from new contracts signed during 1993 marked a new high of $14 million.
- Revenue growth in 1993 was also attributed to significantly increased demand for computer operations services from current Genix clients.
- The company expects 1994 revenue growth to exceed 1993 levels, as requirements from new and current customers expand.

Market Financials

Genix provides its services to various industries.

- Manufacturing industries served include food processing, steel, chemical, plumbing fixtures, automotive components, glass, publishing and tobacco.
- The most significant industry served is the steel industry. Copperweld, Allegheny Ludlum, Wheeling-Pittsburgh Steel and Armco AMD are clients.
- In the services sector, Genix clients include financial services, insurance, health care and transportation companies.
- Genix also serves the needs of software developers, educational institutions and state governments.

Approximately 80% of Genix's 1993 revenue was derived from computer operations services (processing performed at Genix's site) and 20% from network management, specialized processing, printing and professional services.

Geographic Markets

Over 90% of Genix's 1993 revenue was derived from U.S.-based firms. Genix supports these customers with requirements that may reach from Europe to the Far East.

Operations/ Structure

Genix customers are served by two operations groups and by technology support groups for telecommunications, software and technical support and for applications management services.

The general managers of Michigan and Pennsylvania operations carry total responsibility for customer satisfaction. They rely on the support groups to provide specific design and implementation services. The

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general managers operate their respective facilities and manage customer relationships.

In addition to its recently expanded 70,000 square foot headquarters in Dearborn (MI), Genix has an 80,000 square foot computing facility in Pittsburgh (PA) and a 40,500 square foot warehouse/distribution/fulfillment facility in Southgate (MI).

Key Products and Services

Genix adds value to its computer operations services by re-engineering and managing client's networks, taking advantage of new technology in the areas of processing, telecommunications, and network monitoring and control. Genix custom consulting on applications and technology plans also adds value to Genix services.

- Genix-operated mainframes are generally owned by Genix.
- Contracts generally range from three to seven years.
- Genix operates midrange computers for many of its computer operations customers.
- Genix has engineered, implemented and now manages wide-area networks (WANs) for many of its customers. Genix also offers local-area network (LAN) management and desktop support services.
- Genix operates telemarketing information centers and provides product fulfillment services for customers. Genix designs the process, develops the supporting systems and operates the business function.

Computer Hardware and Software:

Genix's data centers have IBM, Amdahl, and Hitachi Data Systems equipment installed using MVS, VM, VS, and DOS operating systems. Genix employs the latest IBM ES/9000 technology.

Genix also operates DEC, Tandem, Concurrent, IBM AS/400 and RISC computers.

Genix uses current DASD and automated tape storage equipment.

Clients

Genix is currently providing services to more than 100 clients. Examples of current contracts include the following:

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- In mid-1993, The Trane Company signed a three-year, $14 million contract. Genix provides two divisions--Trane in Tyler (TX) and Trane in LaCrosse (WI)--with computer operations services. Genix also provides processing services to Trane's parent company, American Standard.

- During the second quarter of 1993, Borden awarded Genix a 5-1/2 year contract for all of Borden's U.S. mainframe systems operations requirements. This contract is valued at over $12 million.

- In 1993, Genix signed a five-year $14.5 million contract with United Technologies Automotive (UTA) to provide computer operations management, electronic printing and microfiche. Disaster recovery services are covered under a third-party agreement.

- In 1993, Genix also signed a contract with Community College of Philadelphia to provide computer operations management.

- Late in 1992, a multiyear contract was signed to provide computer operations services to the New York Daily News. The New York Daily News contract is the second newspaper publisher signed as a Genix client.

- In 1992, Armco AMD in Butler, PA signed a contract with Genix. Genix will provide facilities management services for Digital Equipment Corporation (DEC) computers and computer operations for their IBM MVS environment.

- Genix has been providing computer operations services to Copperweld Corporation since 1985. Copperweld is a Pittsburgh-based steel tube maker. Copperweld uses Genix facilities for IBM mainframe and Tandem computer operations. The Copperweld contract was renewed in 1992 for the second time.

- In June 1989, Genix was awarded a three-year, $15 million contract from H.J. Heinz, a $7 billion food company to provide computer operations and telecommunications network services. The contract was renewed in 1992.

  - Genix has consolidated five data centers to a single platform at its Pittsburgh data center. And during 1992, Genix converted all Heinz affiliates to a common MVS/XA platform.

  - Genix also assisted Heinz with the installation of a T1 voice and data network and an AT&T SDN voice network linking Heinz' five U.S. divisions.

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- During 1992, Genix was awarded a multiyear contract valued at $11 million by Gantos, a national retailer of women's clothing. Genix is providing Gantos with mainframe operations and network services for its headquarters and retail stores.

- During the third quarter of 1992, Genix signed an expanded contract with Comshare, a leading developer of management reporting software. Comshare, a Genix customer for many years, now relies on Genix for all its mainframe computer operations services. Genix also signed an agreement to comarket Comshare's Commander/EIS product line to Genix customers.

- In August 1992, Genix signed a multiyear contract valued at more than $2.5 million with Wheeling-Pittsburgh Steel Corporation to re-engineer and manage Wheeling-Pittsburgh's voice and data networks. Wheeling-Pittsburgh has been a Genix computer operations client for more than two years.

- During the second quarter of 1992, Genix signed a contract with Scripps Howard, a newspaper publisher, for computer operations services.

- Genix continues to provide computer operations, telecommunications and printing services to its sister company, MichCon, the largest natural gas distribution company in Michigan.

- Magic Line has been a customer of Genix since April 1985. Magic Line is a privately held corporation owned by a consortium of the largest banks in Michigan.

  - In 1993, Magic Line merged with Network One in Michigan and Money Mover in Indiana, both owned by National Bank of Detroit.

  - In early 1994, Magic Line merged with the biggest ATM network in Illinois--Cash Station Inc. of Chicago. The two networks link more than 7,000 ATMs in four states.

  - With Genix operating Magic Line's Concurrent computers, Magic Line processes more than seven million transactions per month.

  - During 1992, Genix supported the introduction of debit card services at retail outlets under the Pay Line name.

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Marketing and Sales

Genix markets its services through a direct sales force located in Dearborn (MI), Pittsburgh (PA), Fairfield (CT) and Chicago (IL).

INPUT Assessment

The Genix Group's success is demonstrated by the satisfaction of its customers. During 1993, for example, all expiring contracts were renewed. Genix also has customers operating under their third contract terms. Genix annually conducts a customer satisfaction survey and holds a client symposium.

Genix's planned move to client/server is positive--the key is implementation. Within its customer base, Genix is participating in the transition off of traditional mainframes to midrange platforms, moves to client/server and the development of IT strategies that retain the mainframe as its dominant processor. Genix's approach is to help its customers evolve their strategies, not dictate what the strategies should be.

A key challenge for Genix is to move from traditional data center outsourcing and provide added value through business knowledge and/or applications knowledge. Data center outsourcing (selling MIPs) is a cost-based business subject to margin squeezes due to severe price competition. The key to higher margins is through value-added services.

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THE GENIX GROUP

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Phone: (412) 788-3800
Fax: (412) 788-3507

President:	Rudolfo D. Cifolelli
Status:	Wholly Owned Subsidiary
Parent:	MCN Corporation
Total Employees:	400
Total Revenue:	$68,000,000
Fiscal Year End:	12/31/92

Key Points

- The Genix Group's strategy is to achieve total customer satisfaction through cooperative long-term relationships in which Genix provides information technology services that support a customer's business requirements.
- During 1992, Genix added more than 10 companies to its client list, increasing its client base to more than 100, including 16 Fortune 500 industrial corporations.
- In 1992, Genix has also renewed contracts with 15% of its existing client base, extending many relationships into the latter part of the decade.
- Genix's electronic printing, direct-mail and fulfillment services increased by 200% in 1992. Their electronic printing capabilities will expand to their Pittsburgh facilities in 1993.
- Construction of a new telecommunications support area, called the Network Control Center (NCC), was completed in 1992 in the Pittsburgh data center. Genix currently offers network services to more than 40 clients.

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Company Description

The Genix Group's primary service offerings include computer operations management, telecommunications network design and management, software applications management, and computer-generated electronic printing and fulfillment services.

Genix is owned by MCN Corporation, a $1.3 billion Detroit-based corporation listed on the New York Stock Exchange (MCN).

Company History

The Genix Group was formed in 1990 with the consolidation of the computer operations business of Genix Corporation and the computer operations, electronic printing, fulfillment and telecommunications services of MCN Computer Services, Inc.

- MCN Computer Services was initially formed in 1983 to provide computer operations services to MichCon, an MCN subsidiary and natural gas distribution company, and to pursue non-affiliated customers. It became a separate subsidiary in 1989.
- Genix Corporation, based in Pittsburgh (PA), was formed in 1984 when National Intergroup consolidated its internal data processing operations into a separate subsidiary providing remote processing services to medium-to-large corporations and National Intergroup affiliates.
- In June 1990, MCN Corporation, which owned MCN Computer Services, Inc., agreed to buy Genix Corporation, thus enhancing MCN's outsourcing strength and market position.

Financials

Genix's 1992 revenue reached $68 million, a 10% increase over 1991 revenue of $62 million.

- Revenue growth in 1992 was attributed to significantly increased demand for computer operations services from current Genix clients.
- The company expects 1993 revenue growth to exceed that experienced in 1992, as earnings from new customers build.

Key Products and Services

Approximately 80% of Genix's 1992 revenue was derived from computer operations services (processing performed at Genix's site) and 20% from network management services, specialized processing, printing, and professional services.

Genix adds value to its computer operations services by re-engineering and managing client's networks, taking advantage of new technology in

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the areas of processing, telecommunications, and network monitoring and control. Genix custom consulting on applications and technology plans also adds value to Genix services.

- Genix-operated mainframes are generally owned by Genix.
- Contracts generally range from three to seven years.
- Genix operates midrange computers for many of its computer operations customers.
- Genix has engineered, implemented, and now manages wide-area networks (WANs) for more than 50% of its customers. During 1992, Genix began to offer local-area network (LAN) management and desktop support services.

Clients

Genix is currently providing services to more than 100 clients. Examples of current contracts include the following:

- During the second quarter of 1993, Borden awarded Genix a 5 1/2-year contract for all of Borden's U.S. mainframe systems operations requirements. This contract is valued at over $12 million.
- In 1993, Genix signed a five-year $14.5 million contract with United Technologies Automotive (UTA) to provide computer operations management, electronic printing and microfiche. Disaster recovery services are covered under a third-party agreement.
- In 1993, Genix also signed a contract with Community College of Philadelphia to provide computer operations management.
- Late in 1992, a multiyear contract was signed to provide computer operations services to the New York Daily News. The New York Daily News contract is the second newspaper publisher signed as a Genix client.
- In 1992, Armco AMD in Butler, PA signed a contract with Genix. Genix will provide facilities management services for Digital Equipment Corporation (DEC) computers and computer operations for their IBM MVS environment.
- Genix has been providing computer operations services to Copperweld Corporation since 1985. Copperweld is a Pittsburgh-based steel tube maker. Copperweld uses Genix facilities for IBM mainframe and Tandem computer operations. The Copperweld contract was renewed in 1992 for the second time.

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- In June 1989, Genix was awarded a three-year, $15 million contract from H.J. Heinz, a $7 billion food company to provide computer operations and telecommunications network services. The contract was renewed in 1992.
  - Genix has consolidated five data centers to a single platform at its Pittsburgh data center. And during 1992, Genix converted all Heinz affiliates to a common MVS/XA platform.
  - Genix also assisted Heinz with the installation of a T1 voice and data network and an AT&T SDN voice network linking Heinz' five U.S. divisions.
- During 1992, Genix was awarded a multiyear contract valued at $11 million by Gantos, a national retailer of women's clothing. Genix is providing Gantos with mainframe operations and network services for its headquarters and over 150 retail stores.
- During the third quarter of 1992, Genix signed an expanded contract with Comshare, a leading developer of management reporting software. Comshare, a Genix customer for many years, now relies on Genix for all its mainframe computer operations services. Genix also signed an agreement to co-market Comshare's Commander/EIS product line to Genix customers.
- In August 1992, Genix signed a multiyear contract valued at more than $2.5 million with Wheeling-Pittsburgh Steel Corporation to re-engineer and manage Wheeling-Pittsburgh's voice and data networks. Wheeling-Pittsburgh has been a Genix computer operations client for more than two years.
- During the second quarter of 1992, Genix signed a contract with Scripps Howard, a newspaper publisher, for computer operations services.
- Genix continues to provide computer operations, telecommunications, and printing services to its sister company, MichCon, the largest natural gas distribution company in Michigan.
- Magic Line has been a customer of Genix since April 1985. Magic Line is a privately held corporation owned by a consortium of the largest banks in Michigan.
  - Magic Line operates an on-line financial network that directly controls approximately 2,500 automated teller machines and telecommunications networks.

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- With Genix operating Magic Line's Concurrent computers, Magic Line processes more than 4 million transactions per month.

- During 1992, Genix supported the introduction of debit card services at retail outlets under the Pay Line name.

Industry Markets

Genix provides its services to various industries.

- Manufacturing industries served include food processing, steel, chemical, plumbing fixtures, automotive components, glass, publishing, and tobacco.

- The most significant industry served is the steel industry. Copperweld, Allegheny Ludlum, Wheeling-Pittsburgh Steel, and Armco Steel are clients.

- In the services sector, Genix clients include financial services, insurance, health care, and transportation.

- Genix also serves the needs of software developers, educational institutions, and state governments.

Geographic Markets

Over 90% of Genix's 1992 revenue was derived from U.S.-based firms.

In addition to its recently expanded headquarters in Dearborn (MI), Genix has an 80,000 square foot computing facility in Pittsburgh (PA).

Computer Hardware and Software

Genix's data centers have IBM, Amdahl, and Hitachi Data Systems installed using MVS, VM, VS, and DOS operating systems.

Genix also operates DEC, Tandem, Concurrent, and IBM AS/400 midrange computers.

Genix uses current DASD and automated tape storage equipment.

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GENIX CORPORATION
One Marquis Plaza
5315 Campbell's Run Road
Pittsburgh, PA 15205
(412) 788-3500

Thomas J. Mavor, President
Wholly Owned Subsidiary of MCN Investments
Total Employees: 150
Total Revenue, Fiscal Year End 3/31/90: $27,500,000

The Company

Genix Corporation currently provides systems operations processing services to large corporations.

- In 1984, Genix was formed when National Intergroup consolidated its internal data processing operations into a separate subsidiary providing remote processing services to medium-to-large corporations and National Intergroup affiliates.
- In June 1990, it was announced that National Intergroup had sold all of the outstanding stock of Genix to MCN Corporation, a $1.3 billion Detroit-based holding company.

Genix's fiscal 1990 revenue reached $27.5 million, compared to $27.2 million in fiscal 1989.

- Approximately 70% of Genix's fiscal 1990 revenue was derived from noncaptive (external) clients, compared to 55% in fiscal 1989. Since the transaction with MCN, Genix has no captive revenue sources. All revenue is derived from contracts with third-party customers.
- Fiscal 1990 results were attributed to significantly increased demand for systems operations services. In addition, when owned by National Intergroup, intercompany business was expected to shrink significantly. The company added seven new clients and $14 million in annual new business during the year.
- The company expects fiscal 1991 revenue to exceed $40 million.

Key Products and Services

Approximately 90% of Genix's fiscal 1990 revenue was derived from systems operations services (processing performed at Genix's site) and 10% from professional services facilities management (Genix staff located at the client site).

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Genix focuses on providing systems operations management services, leaving applications in the hands of its customers.

- Genix's services allow customers to eliminate the need to operate mainframes in-house. Clients retain applications staff and data processing management. However, there is no need for systems programming.

- Genix adds value to its systems operations services by reengineering and redesigning client networks, taking advantage of new technology in the areas of processing, telecommunications, and network monitoring and control.

- Genix-operated mainframes are generally owned by Genix.

- Contracts generally range from three to five years.

Genix is currently providing systems operations services to over 60 clients. Examples of current contracts include the following:

- Genix has been providing systems operations services to Copperweld Corporation since 1985. Copperweld renewed its three-year contract with Genix in 1988.

  - Copperweld is a Pittsburgh-based steel tube maker. Its contract with Genix cut Copperweld's systems budget from $9 million a year to $4 million, and reduced MIS staffing from 100 to 20.

  - Copperweld still owns its National Advanced Systems (NAS) 3083 mainframes, which are run by Genix staff at the Genix data center in Pittsburgh. Tandem computers are scheduled to replace the NAS mainframes.

- In April 1989, Genix was awarded a five-year contract from American Standard Inc., a $3.4 billion air conditioner, transportation, and building products manufacturer.

- In June 1989, Genix was awarded a three-year, $15 million contract from H.J. Heinz, a $5.2 billion food company.

  - Genix has taken over virtually all of Heinz' IBM mainframe processing in the U.S. and provides technical support in both MVS and VSE environments.

  - Genix also assisted Heinz with the installation of a T1 voice and data network and an AT&T SDN voice network linking Heinz' five U.S. divisions.

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- In February 1990, Genix was awarded a five-year, multimillion dollar contract by Bailey Controls, a Cleveland-based manufacturer of process control equipment.

- In May 1990, Genix was awarded a five-year, $11 million outsourcing contract from Duracell, Inc., a producer of consumer alkaline batteries.

Industry Markets

Approximately 30% of Genix's fiscal 1990 revenue was derived from National Intergroup. Of the remaining 70% of revenue, the majority was derived from discrete (industrial) manufacturers and the balance from process manufacturers and other industries, including services and insurance.

The target market for Genix's systems operations services is corporations with at least $200 million in revenue. Most clients, however, have revenues over $500 million.

Geographic Markets

Approximately 90% of Genix's fiscal 1990 revenue was derived from U.S.-based firms and 10% from international sources.

In addition to its headquarters in Pittsburgh, Genix has offices in Connecticut and London.

Computer Hardware and Software

Genix's data center in Pittsburgh has IBM, Amdahl, and Hitachi Data Systems installed using MVS, VM, VS, and DOS operating systems. As of June 1990, Genix operated almost 400 MIPS of mainframe capacity.

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COMPANY BRIEF

Primary Industry-Specific Market: Process Manufacturing

GENIX Corporation
20 Stanwix Street
Pittsburgh, PA 15222
(412) 394-4306

CEO: Raul Pupo, President
Subsidiary of: National Intergroup
Founded: 1984

Employees: 130 (10/86)
Revenue (FYE 12/31/85): $25 million

The Company: Provides professional services, processing services, and turnkey systems to large businesses

Sources of Revenue:
- Processing/Network Services
- Professional Services
- Turnkey Systems

Key Services:
- Processing/Network Services
  - Remote interactive computing services
- Professional Services
  - Capacity and disaster recovery planning
  - Network/telecommunications planning
  - Data base analysis and design
  - Computer center design
  - Education and training
  - Facilities management
- Turnkey Systems
  - Process control system

Target Industries:
- Process manufacturing
- Discrete manufacturing
- Air transportation
- Health care
- Oil and gas exploration
- Distribution
- Mining
- Accounting Firms

October 1986

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Geographic Markets:
- U.S. and Non-U.S.

Significant Events:
- As of November 1985, GENIX will provide facilities management services for Copperweld Corporation
- GENIX signed an agreement in April 1986 to provide data processing support for the first Blue Cross-Blue Shield national data base
- GENIX uses large IBM mainframes

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

August 1996

Global Internet Access Services, Inc.

Chairman & CEO: Dennis Rohan
Stanford Research Park
755 Page Mill Road
Suite A-101
Palo Alto, CA 94304
Phone: (415) 855-1700
Fax: (415) 855-1715
Internet: http://www.globalinternet.com

Status:	Private
Employees:	100+ (8/96)
Revenue:	$15,000,000*
Fiscal Year End:	12/31/95

* *Company estimate*

Company Description

Global Internet Access Services, Inc., formed in 1993, provides consulting, design, Internet, and intranet access services, security software, and technical support, primarily for mid-sized companies.

Company Strategy

Global Internet positions itself as a one-stop provider of enterprise internetworking solutions with an emphasis on Windows NT.

Organization and Structure

Global Internet has three strategic business areas focused on allowing organizations to build, manage, and secure their networks: Internet Integration Services Vendor, ISP (Internet Service Provider), and firewall software products.

Global Internet is headquartered in Palo Alto (CA). The company has the following business units:

- Global Internet Network Services, based in Lincoln (NE), provides Internet access and other on-line services, as well as 24-hour technical support.

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- Cohesive Systems, a Global Internet Company based in San Mateo (CA), provides network design and integration capabilities.

- Forte Systems, A Global Internet Company-based in Romeoville (IL), provides network design and integration capabilities.

- The Global Internet Software Group, located in San Mateo (CA) and Champaign (IL), produces Global Internet's line of Centri network security products for Windows NT.

Key executives are listed below:

Global Internet
Key Executives

Name	Title
Dennis Rohan	Chairman and CEO
Ed Kramer	VP Finance
Mark Kriss	Executive VP
Phillip Marson	VP Sales

Financials

Global Internet generated approximately $15 million during 1995.

The company estimates that 1996 revenue will reach $28 million.

Source of Revenue by Product/Service

Global Internet's 1995 revenue was derived approximately as follows:

Internet Service Provider.....	30%
Internet Integration Services	60%
Firewall software/security serv.	10%
	100%

Industry Markets

Global Internet markets its products primarily to mid-sized companies.

Acquisitions

Global Internet was formed based on a series of acquisitions, including the following:

- MIDnet, based in Lincoln (NE), an Internet access and service provider acquired in 1994

- Cohesive Systems, a San Mateo (CA)-based network designer and integrator acquired in 1995

- Blue Ridge Software, a Champaign (IL)-based security software supplier acquired in 1995

- Forte Computer Services, a Chicago (IL)-based network designer and integrator acquired in 1996

Employees

As of December 31, 1995, Global Internet had approximately 70 employees.

The company currently has more than 100 employees.

Key Products and Services

There are three segments of services currently offered by Global Internet: Cohesive Integration Services, Global Network Services, and Centri security software solutions.

Global Internet's Cohesive Integration Services allow organizations to design, plan and expand their networks, and install new technologies, and provides ongoing consulting to support evolving information systems requirements. There are currently two brands available under the Cohesive name:

- Cohesive Enterprise Design and Integration offers turnkey solutions targeted at designing and integrating the overall network.

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- Cohesive Security provides a service that helps an organization identify security needs and integrate the appropriate solution.

Global Network Services enable organizations to provide network access and on-line services regardless of location; additionally, these services offer network management capabilities, including 24-hour monitoring and problem resolution.

Global Internet's Centri security software provides tools for securely accessing Internet resources such as E-mail and the Web and for establishing "trusted" links between individual computers and the company network or the Internet. The Centri line currently includes two products:

- Centri Firewall for Windows NT is an application-proxy Internet firewall solution designed to provide secure access and internetwork communications between private, internal networks and public, untrusted networks. Placed on the server, Centri Firewall features Trusted Information Systems' Gauntlet firewall technology and allows any TCP/IP application on any operating system to access Internet resources and other users.

- Centri TNT (Trusted Network Transport) shields sensitive data on internal networks running Microsoft Windows NT, protecting each organizational network and maintaining compatibility with all Windows NT applications. Centri TNT secures the TCP/IP protocol stack of Windows NT and applies security controls to all networked applications and network services.

In addition to these products and services, Global Internet also resells different products from networking vendors such as Cisco, FTP Software, Sun Microsystems, Bay Networks, and Novell.

Clients

Organizations ranging from the U.S. Department of Defense to large commercial banks use the Gauntlet Internet Firewall technology that is incorporated into Global Internet's Centri Firewall security software.

A sample of clients includes Sprint, McDonnell-Douglas, Rand McNalley, and Occidental Petroleum.

Marketing and Sales

Global Internet primarily focuses on "mid-sized" businesses: companies that are large enough to require a sophisticated enterprise network, but can't afford to build and maintain a staff to handle all their networking needs.

The company's sales and marketing activities are currently constrained by a geographical marketing limitation on its firewall software under which the company can only sell its products in the U.S., Canada, the U.K., France, Germany, Switzerland, Japan, Hong Kong, and Australia.

Alliances

Global Internet has established the Global Internet Partners Program, and is working with OEMs, service providers, and resellers to develop a wide range of networking options for current and future customers.

Domestic partners include: Patriot Systems, Logic Plus, and IDS.

International partners include Tokyo-based ASCII Network Technology and Melbourne-based Softway Pty.

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Competition

Global Internet competes with Internet Service Providers (ISPs) such as PSINet, UUNet, and NETCOM.

The company also competes with firewall developers such as CheckPoint Software Technologies and Raptor Systems.

Additionally, Global Internet competes with Internet integration services providers such as SoftTron, INS, and many smaller regional integrators.

INPUT Assessment

Global Internet's strengths include:

- Windows NT-based firewall technology
- Wide array of company services
- Internet technical experience (access, security, network integration)
- Network security experience
- Access to Microsoft NT source code

Future challenges include:

- Competition in the Internet service industry
- Expanding and solidifying the company's product line
- Potential price competition for firewall software

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GEOCONTROL SYSTEMS, INC.
1720 Nasa Road #1
Houston, TX 77058
(713) 333-2561

John Zarcaro, CEO
Private Corporation
Total Employees: 19
Total Revenue, Fiscal Year End
9/30/88: $1,700,000*

* INPUT estimate

The Company

GeoControl Systems, Inc. (GeoControl) develops and markets control systems software and provides professional services.

GeoControl employs 19 people.

Key Products and Services

GeoControl has two focus areas of expertise: software for systems control and professional services.

Currently professional services account for approximately 65% of the company's revenue and software accounts for approximately 35%. The company expects the revenue to swing more towards the software side as it introduces new products and as current products become more established.

FLEXCON and FLEXCON 2 are supervisory control software packages for manufacturing applications. The packages can be used as a closed loop system in addition to a supervisory system for both batch and continuous processes.

- FLEXCON 2 is a later version of FLEXCON.
- There are approximately 15 installations of the FLEXCON product.

The company is currently developing an integrated relational data base server with fourth generation language capabilities and SQL compliant commands. The product will be offered as a toolset to OEMs of control and MRP software in the process manufacturing area. The product is designed to bridge the gap between control and MIS systems in order to provide CIM solutions.

The company's professional services include the design, development, and maintenance of strategic information systems.

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Industry Markets

The company markets its software to OEMs, VARs and systems integrators dealing with process manufacturing applications.

Most of the company's professional services are provided to the aerospace industry (NASA in particular).

Geographic Markets

One hundred percent of GeoControl's fiscal 1988 revenue was derived from the U.S.

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COMPANY PROFILE

GEOQUEST SYSTEMS, INC.
4605 Post Oak Place
Houston, TX 77027
(713) 622-8065

Rex C. Ross, President
Private Company
Total Employees: 48
Total Revenue, Fiscal Year End 1/31/89: $4,000,000*

* INPUT estimate

The Company

GeoQuest Systems, Inc., founded in 1984, develops and markets an interactive computer graphics workstation with application software to improve the productivity and quality of seismic interpretations needed to make exploratory well decisions.

GeoQuest has joint marketing agreements with DEC and Sun Microsystems.

Key Products and Services

GeoQuest markets a turnkey product called IES (Interactive Exploration System). The system uses DEC VAX and MicroVAX and Sun Microsystems processors.

Industry Markets

GeoQuest Markets its products to the oil and gas exploration industry.

Geographic Markets

GeoQuest markets its products both domestically and internationally. Approximately 80% of GeoQuest's 1988 revenue was derived from the U.S.

In addition to its Houston office, GeoQuest has sales and support offices in Canada and the U.K.

Computer Hardware

GeoQuest develops its products on DEC and Sun equipment.

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COMPANY BRIEF

Primary Industry-Specific Market: Process Manufacturing

GeoQuest Systems, Inc.
4605 Post Oak Place
Houston, TX 77027
(713) 622-8065

CEO: Rex C. Ross, President
Private Company
Founded: 1984

Employees: 48 (10/31/86)
Revenue (FYE 1/31/86): $2.1 million

The Company: Develops and markets an interactive computer graphics workstation with application software to improve the productivity and quality of seismic interpretations needed to make exploratory well decisions.

Sources of Revenue:
- Turnkey Systems (100%)

Key Products:
- Turnkey Systems (Utilizes DEC VAX and MicroVAX computers)
  - IES - Interactive Exploration System

Target Industries:
- Process Manufacturing (100%)

Geographic Markets:
- U.S. (80%)
- Non-U.S. (20%)
- Offices: Sales and support sites in Canada and England

Other:
- Unisys (formerly Sperry) markets the IES system under a worldwide non-exclusive marketing agreement
- GeoQuest recently completed a joint marketing arrangement with DEC

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GEOVISION SYSTEMS, INC.
5251 DTC Parkway
Suite 200
Englewood, CO 80111
Phone: (303) 796-8200

Doug Seaborn, President and CEO
Skip Hawk, COO
Private Corporation
Total Employees: 225
Total Revenue, Fiscal Year End
12/31/91: $25,000,000*

*Company estimate

The Company

GeoVision Systems, Inc. specializes in the development and marketing of geographic information systems (GIS) software products.

- The company's VISION* product line supports the input, analysis, output, and management of geographical data, including traditional maps and engineering drawings.
- GeoVision's target markets include larger utilities, telecommunications companies, government agencies, and commercial enterprises.

Since 1985, GeoVision's key product focus has been to provide an advanced, open systems approach to geographic information management. The company claims a number of innovations in the development of the VISION* product line that have led the GIS industry toward the mainstream of data base and enterprise systems:

- Distributed, client/server computing, employing a distributed relational data base management system (RDBMS) architecture
- Full use of standard commercial RDBMS products from Oracle, Ingres, and Sybase (1992)
- Full support of emerging open systems, GUI, networking, data access, and operating systems technologies (X Windows/MOTIF, TCP/IP, NFS, SQL, UNIX)
- Operating on multiple hardware platforms, including Sun Microsystems, DEC, and IBM
- A specialized Application Development Facility, incorporating 4GL development tools, GUI builders, and data and image integration tools.

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GeoVision is a long-time supporter of major GIS industry associations, and is increasingly involved in mainstream information system and data base management industry associations and initiatives.

Company History

GeoVision was established in the late 1970s as a business unit within SHL Systemhouse. The business was purchased by SHL's parent, Kinburn Technology Corporation, in 1984 and GeoVision operated as a majority-owned subsidiary of Kinburn from 1984 through 1990.

Kinburn reported financial difficulties in March 1990 and effective control of GeoVision was assumed by the Royal Bank, a Kinburn creditor, shortly thereafter.

In November 1990, over 120 of GeoVision's employees committed to invest in the company. GeoVision executives then recruited two technology venture capital firms--Noranda Enterprise and Ventures West--to join them as partners in structuring and funding the transaction.

Effective July 1991, GeoVision announced a private equity placement, along with new ownership. GeoVision currently operates as a privately held company, with ownership comprised of many of the company's more than 225 employees, in partnership with Noranda and Ventures West.

Key Products and Services

GeoVision derives approximately 70% of its revenue from its GIS software products. The remaining 30% of revenue was derived from maintenance and professional services.

VISION*, introduced during 1991, replaces GeoVision's earlier generation GIS/AMS product line.

- The VISION* product line is highly modular, with 12 major system modules in five groups as follows:
  - Management modules (VISION* Manager and VISION* Administrator) have overall responsibility for data administration and management.
  - Input and revision modules (VISION* Builder, VISION* Builder+, VISION* Image, VISION* CoGo, and VISION* Edit) are graphical, interactive modules used to create and maintain the geographic information.

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- The customization module (VISION* Developer) provides the user with a 4GL toolkit for adapting and extending the system.
- Analysis modules (VISION*DTM and VISION*Polygon) are used to analyze spatial data in the data base.
- Output modules (VISION*Plot and VISION*Query) handle user inquiries of the data bases as well as plotting tasks.

- VISION* supports UNIX workstations and servers from DEC, IBM, and Sun Microsystems.
- Users of the VISION* software may employ a graphical workstation, PC, or X Window terminal attached to a local-area network, such as Ethernet. The VISION* GIS relational data base and associated management software commonly reside on a powerful data base server. Both the server and the workstation use the UNIX operating system (or, for DEC VAX servers, VMS).
- There are currently over 100 VISION* customers worldwide.

GeoVision also provides specialized application starter sets for the telecommunications industry (VISION*Telecom) and utility industry (VISION*Utility). These applications provide a range of specialized engineering, planning, and maintenance applications targeted to these industries.

Professional/support services provided by GeoVision include system design, application development, project management, training, and telephone support.

Industry Markets

GeoVision currently targets telecommunications companies, utilities (electric, gas, water, and pipelines), and large government markets.

The company sees commercial applications of GIS as its next major growth market.

Geographic Markets

GeoVision's revenue is derived from the U.S. and international sources.

GeoVision has four major international offices, including Denver (CO), Ottawa (Canada), London (U.K.), and Sydney (Australia).

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Each of these offices offers complete sales, services, and support in its respective geographical area.

The company has installations in approximately 20 countries worldwide.

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GEOVISION CORPORATION
5251 DTC Parkway, Suite 200
Englewood, CO 80111
(303) 796-8200

Doug Seaborn, President and CEO
Alex Wood, Director of International Operations
John Mockus, Director of North America
Subsidiary of Kinburn Technology Corporation
Total Employees: 136
Total Revenue, Fiscal Year End 8/31/89: $11,000,000*

* INPUT estimate

The Company

GeoVision Corporation, established in 1975, specializes in the development and marketing of specialized software ("Geographic Information Systems") for the input, management, processing, and analysis of geographically-referenced information.

GeoVision systems support utility, communications, state and local government, transportation, natural resource, oceanographic, and land information applications in eleven countries. The design concepts and features of GeoVision software are well-suited to large-scale geographic data base projects and multi-participant implementations.

GeoVision is a privately held subsidiary of Kinburn Technology Corporation, an $870 million group of companies that includes eight subsidiaries specializing in high-technology system development and integration.

GeoVision currently employs 136 people worldwide.

GeoVision is a long-time supporter of industry organizations including the Urban and Regional Information Systems Association (URISA), American Planning Association (APA), American Public Works Association (APWA), AM/FM International, Canadian Institute of Surveying and Mapping (CISM), and the Canadian Cartographic Association (CCA).

Key Products and Services

GeoVision derived approximately 85% of its fiscal 1989 revenue from application software products. The remaining 15% was derived from related maintenance and professional services.

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Since 1984, GeoVision's key product focus has been to provide the AMS/GIS information management software product. The system has a number of features which are industry standards. They include:

- A distributed approach to information management in order to ensure continued system growth while eliminating information processing bottlenecks
- Operates on multiple hardware platforms including Sun Microsystems, Digital Equipment Corporation and IBM
- An embedded copy of the ORACLE relational database management system
- A spatial indexing scheme that views the data as a single continuous map with no artificial boundaries
- A topological structure that maintains contiguity and continuity relationships among linear and polygonal elements

GeoVision also markets DEWS™ (Distribution Engineering Work System), a related application software package. DEWS, a product of Southwestern Bell Telephone Company, was designed specifically for use by large telephone companies. DEWS supports engineering and information management involving geographically distributed telephone outside plants. DEWS has functions such as map creation, special reporting and inventory management, workprint generation, records posting, material list generation, connectivity analysis, and planning functions.

GeoVision provides ongoing support services including system design, client support and training, and assistance with defining specifications for data conversion.

Industry Markets

GeoVision targets publishers of maps, utilities companies, communications concerns, state and local governments, and transportation companies.

Geographic Markets

GeoVision has three main offices in the following locations: Ottawa (Canada), Denver (CO), and Sydney (Australia).

Each GeoVision office offers complete sales, consulting, training, implementation, and continuing support for clients and staff dedicated to custom product development for their respective markets.

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COMPANY PROFILE

GEOVISION
1600 Carling Avenue
Suite 350
Ottawa, Ontario
Canada K-1Z8R7
(613) 722-9518

Doug Seaborn, President
Subsidiary of Kinburn Technology Group
Total Employees: 50
Total Revenue, Fiscal Year End
12/31/85: $5 Million*

THE COMPANY

- GeoVision (formerly SHL/Systemhouse Graphics) was founded in 1974 to provide software and professional services for geoprocessing and mapping applications. Clients include city and county governments, utilities, survey and mapping organizations, natural resource agencies, and consulting engineers.
- INPUT estimates that GeoVision's total 1985 revenue was approximately $5 million, and GeoVision estimates an annual growth rate of approximately 40%.
- GeoVision has 50 employees, the majority of whom are technical staff.
- GeoVision's competitors include Intergraph, Environmental Systems Research Institute, and Synercom Technology, among others.

KEY PRODUCTS AND SERVICES

- Approximately 70% of GeoVision's 1985 revenue was derived from its mapping software products. The remaining 30% was derived from professional services, including software development and training.
- GeoVision markets six proprietary software packages for geographic mapping applications.
  - RAMS automates the compilation and production of maps together with the capture of geographic-based features and their characteristics.
    - RAMS operates on DEC MicroVAX II and HP-1000 computers and is used in a variety of production environments including topographic mapping, utility outside plant engineering and mapping, and natural resource inventories.
    - Current RAMS users include mapping agencies, utilities, private mapping companies, consulting engineers, and natural resource management agencies.

*INPUT estimate

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- RAMS VX is an enhanced version of RAMS which runs on the entire family of VAX computers.

- AUTOCHART automates the production of nautical charts. It is otherwise similar to RAMS.

- TELEGRAPHICS is a specialized version of RAMS designed for the capture, analysis, and ongoing management of telephone outside plant facilities, together with their underlying geographic base. Special functions, such as work order processing and cable loop make-up, are included.

  - In May 1986 GeoVision signed a marketing agreement with Sperry Corporation of Pennsylvania under which Sperry will market TELEGRAPHICS on Sperry's line of computer systems supporting the UNIX operating system.

- GEOGRAPHIC INFORMATION SYSTEM (GIS) is built to gather and manage large volumes of complex land-related information from diverse sources.

  - GIS features continuous data base coverage across a wide geographic territory and can handle large data bases whose size is limited only by its host's available mass storage. Users query GeoVision's spatial relational data base using a geographic query language.

  - GIS is designed for operation on the DEC VAX computer family under the VMS operating system and may be accessed through standard alphanumeric terminals, color graphics terminals such as Tektronix 4101, or from an IBM XT/AT for inquiry or casual update. Detailed reports and plots can also be produced on GIS.

- ADVANCED MAPPING SYSTEM (AMS) is a workstation-based system engineered for the capture, display, and analysis of land-related information.

  - AMS operates on self-contained color graphics workstations, each with local storage, multiple 32-bit processors, local area network interfaces, and the capacity to add needed peripherals.

  - AMS emphasizes user interface and is available on HP-9000 series 320 workstations as well as on DEC's VAXstation II/GPX.

- Professional services provided by GeoVision include the following:

  - GeoVision offers system design and consulting services. GeoVision's involvement with system design projects usually begins with requirement definition and continues through final systems delivery, implementation, and ongoing support. The systems development and installation phase is generally contracted on a fixed-price basis.

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- GeoVision also performs consulting projects involving user needs analysis, feasibility studies, systems specification development, hardware and software benchmarking and selection, pilot projects, and business case evaluations.

- Because of the nature of its products GeoVision usually sells software and hardware together, although software alone is available. Prices for various combinations of hardware and software range from $50,000 to over $1 million.

- The RAMS, AMS, and GIS systems come in two versions: one for use with the VMS operating system, the other for use with UNIX on any machine that runs UNIX.

- GeoVision has installed a total of 35 systems.

INDUSTRY MARKETS

- GeoVision derives its revenue from four industry segments as follows:

Survey and mapping firms	60%
City and county governments	25
Utilities (outside plant facilities)	10
Natural resources organizations	5
	100%

- Although the majority of GeoVision's business currently comes from survey and mapping firms, its future marketing strategy will emphasize utilities (particularly telephone companies) and city and county governments.

GEOGRAPHIC MARKETS

- GeoVision's customer base is worldwide. The company derives revenue from various geographical areas as follows:

U.S.	40%
Canada	20
Other	40
	100%

- The company's headquarters are located in Ottawa (Canada). GeoVision also has offices in Denver (CO) and Sydney (Australia) and operates through agents in five other countries.

COMPUTER HARDWARE

- An inventory of computer hardware installed at GeoVision's three offices is not available, but the company uses the following types of computers for in-house processing and client support:

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- HP-1000.
- HP-9000.
- DEC VAX-11/730.
- DEC VAX-11/750.
- DEC MicroVAX II.
- DEC VAXstation II/GPX.

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GERBER ALLEY
The Corners Parkway
Norcross, GA 30092
(404) 447-0148

Michael H. Brown, Chairman and CEO
Private Company
Total Employees: 650
Total Revenue, Fiscal Year End
12/31/90: $67,900,000

The Company

Gerber Alley, founded in 1983, provides DEC- and HP-based turnkey health care information systems to hospitals.

Gerber Alley's 1990 revenue reached $67.9 million, a 64% increase over 1989 revenue of $41.4 million. The company's average annual growth rate over the past five years is about 41%. Gerber Alley has operated profitably since 1985. A five-year revenue summary follows:

GERBER ALLEY
FIVE-YEAR REVENUE SUMMARY
($ millions)

	FISCAL YEAR				
ITEM	1990	1989	1988	1987	1986
Revenue	$67.9	$41.4	$27.3	$15.6	$12.3
• Percent increase from previous year	64%	52%	75%	27%	261%

Gerber Alley management attributes the company's growth to its product functionality and its dedicated employees.

Major competitors include HBO & Company, Shared Medical Systems, and MEDITECH.

Key Products and Services

One hundred percent of Gerber Alley's 1989 revenue was derived from turnkey systems and associated support services.

Gerber Alley's principal product is THE PRECISION ALTERNATIVE[R], an integrated health care information system for hospitals.

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- The system runs on DEC VAX Series 4000, 6000, and 9000 and HP 3000 Series 900 computers.

- Modules are available for patient care, financial accounting, clinical, and decision support applications. Modules include:

  - Patient Care System

    Census/Registration
    Patient History
    Patient Care Planning
    Order Management
    Appointment Scheduling
    Results Reporting
    Professional Staffing & Scheduling
    Physician Registry
    Physician Decision Support

  - Clinical System

    Pharmacy Management
    Laboratory Management
    Radiology Management

  - Financial System

    Census/Registration
    Patient History
    Physician Registry
    Medical Records
    Case Mix Management
    Materials Management
    Revenue/Statistical Control
    Patient Billing
    Third-Party Billing
    Electronic Billing
    Accounts Receivable
    Credit and Collections
    Agency Bad Debt
    General Ledger
    Accounts Payable
    Property Management
    Budget Management
    Human Resources/Payroll
    Time Management

- The systems range in price from $1 million to $4 million.

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- Over 75 Gerber Alley systems have been sold.

Gerber Alley also provides installation and software support services.

Industry Markets

The majority of Gerber Alley's revenue is derived from hospitals. The company also markets a system to large and mid-sized physician practice groups.

The target market for Gerber Alley's THE PRECISION ALTERNATIVE system is hospitals with 100 to 600 beds.

Geographic Markets

The majority of Gerber Alley's 1990 revenue was derived from the U.S.

- During 1990, Gerber Alley signed 16 U.S. hospital clients and three international clients.

In addition to its headquarters, the company has offices in Boston, Chicago, Los Angeles and Walnut Creek (CA), and Dublin (Ireland).

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GERBER ALLEY
The Corners Parkway
Norcross, GA 30092
(404) 447-0148

Michael H. Brown, President and CEO
Private Company
Total Employees: 400
Total Revenue, Fiscal Year End
12/31/89: $41,400,000

The Company

Gerber Alley, founded in 1983, provides DEC- and HP-based turnkey health care information systems to hospitals.

Gerber Alley's 1989 revenue reached $41.4 million, a 52% increase over 1988 revenue of $27.3 million. The company's average annual growth rate over the past five years is about 103%. Gerber Alley has operated profitably since 1985. A five-year revenue summary follows:

GERBER ALLEY
FIVE-YEAR REVENUE SUMMARY
($ millions)

	FISCAL YEAR				
ITEM	1989	1988	1987	1986	1985
Revenue	$41.4	$27.3	$15.6	$12.3	$3.4
• Percent increase from previous year	52%	75%	27%	261%	100%

Gerber Alley management attributes the company's growth to its product functionality and its dedicated employees.

Major competitors include HBO & Company, Shared Medical Systems, and MEDITECH.

Key Products and Services

One hundred percent of Gerber Alley's 1989 revenue was derived from turnkey systems and associated support services.

Gerber Alley's principal product is THE PRECISION ALTERNATIVE®, an integrated health care information system for hospitals.

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- The system runs on DEC VAX Series 6000 and HP 3000 Series 900 computers.

- Modules are available for patient care, financial accounting, clinical, and decision support applications. Modules include:

  - Patient Care System

    Census/Registration
    Patient History
    Patient Care Planning
    Order Management
    Appointment Scheduling
    Results Reporting
    Professional Staffing & Scheduling
    Physician Registry
    Physician Decision Support
    Pharmacy Management
    Laboratory Management
    Radiology Management

  - Financial System

    Census/Registration
    Patient History
    Physician Registry
    Medical Records
    Case Mix Management
    Materials Management
    Revenue/Statistical Control
    Patient Billing
    Third-Party Billing
    Electronic Billing
    Accounts Receivable
    Credit and Collections
    Agency Bad Debt
    General Ledger
    Accounts Payable
    Property Management
    Budget Management
    Human Resources/Payroll
    Time Management

- The systems range in price from $1 million to $4 million.

- There are currently 62 systems installed.

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Gerber Alley also provides installation and software support services.

Industry Markets

One hundred percent of Gerber Alley's revenue is derived from hospitals.

The target market for Gerber Alley's THE PRECISION ALTERNATIVE system is hospitals with 100 to 600 beds.

Geographic Markets

Virtually all of Gerber Alley's 1989 revenue was derived from the U.S. The company signed one client from Dublin, Ireland during the year.

In addition to its headquarters, the company has offices in Boston, Chicago, Los Angeles and Walnut Creek (CA), and Dublin (Ireland).

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GERBER SCIENTIFIC, INC.

83 Gerber Road West
South Windsor, CT 06074
Phone: (203) 644-1551
Fax: (203) 643-7039

Chairman & CEO:	H. Joseph Gerber
Status:	Public Corporation
Stock Exchange:	NYSE
Total Employees:	1,500 (4/93)
Total Revenue:	$254,365,000
Fiscal Year End:	4/30/93

Key Points

- Gerber has experienced six consecutive quarters of revenue growth.
- At the onset of the recession, Gerber Scientific began a comprehensive realignment to cut costs and optimize organizational and financial assets. Actions taken included:
  - Reducing employment by more than 25% from its peak
  - Consolidating all manufacturing operations into company-owned facilities
  - Intensifying asset management
  - Managing cash and investments for higher returns
  - Combining the operations of two smaller subsidiaries (Gerber Scientific Instrument Company and Gerber Systems Technology, Inc.) into a new unit, Gerber Systems Corporation
- Gerber's pattern for future growth incorporates continued strategic research and development, including:
  - Intensified research and development during the recession
  - Research and development spending exceeding 8% of sales for fiscal 1993

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Company Description

Gerber Scientific, Inc., founded in 1948, develops, markets, and supports CAD/CAM turnkey systems to automate the design and production processes in a range of industries, including apparel, automotive, aerospace, electronics, printing, metalworking, footwear, optical, graphic arts, silkscreen printing, and signmaking.

Strategy

Gerber's strategy for growth includes continuing to introduce new products as solutions to manufacturing problems.

In the signmaking area, Gerber has launched a system that will dramatically change how signs are made. GERBER EDGE is a fully-automated imaging device that can print a range of colorful and complex graphics for producing striking signage.

In the apparel/materials handling area, Gerber continues to develop new products to increase productivity.

In the interactive design and production area, Gerber has introduced the Crescent/42™ PlateSetter, which allows up to 32"x 42" direct plate imaging. In addition, Gerber is rebuilding its product offerings and distribution networks and expects to capture a major market share overseas as it has done in the U.S.

In the optical area, Gerber's strategy is to penetrate the high-volume optical laboratories and super stores where high quality and quick turnaround are priorities.

Financials

Fiscal 1993 revenue reached $254.3 million, a 2% increase over fiscal 1992 revenue of $250.0 million. Net income rose 12%, from $7.4 million in fiscal 1992 to over $8.3 million in fiscal 1993. A five-year financial summary follows:

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GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	4/93	4/92	4/91	4/90	4/89
Revenue	$254.3	$250.0	$268.4	$307.2	$299.3
· Percent increase (decrease) from previous year	2%	(7%)	(13%)	3%	13%
Income before taxes	$12.2	$11.3	$12.3	$49.8	$50.9
· Percent increase (decrease) from previous year	8%	(8%)	(75%)	(2%)	11%
Net income	$8.3	$7.4	$8.0	$32.4	$32.9
· Percent increase (decrease) from previous year	12%	(8%)	(75%)	(2%)	11%
Earnings per share	$0.35	$0.31	$0.34	$1.36	$1.35
· Percent increase (decrease) from previous year	13%	(9%)	(75%)	1%	17%

Fiscal 1993 results were attributed to the following:

- Product sales increased 3%, partially offset by a 3% decline in services revenue.
- The sales gain occurred mostly in North America with Europe and other international markets registering smaller gains. Export sales remained a significant portion of the company's business, representing 40% of total revenue in fiscal 1993.
- The largest sales occurred in computer-controlled cutting systems for the apparel and allied industries and in optical lens manufacturing systems that automate the production of prescriptions on eyeglass lenses.
- These gains were partially offset by lower sales of microprocessor- and PC- controlled systems for the signmaking industry.
  - Gerber has significant competition in this market from low-end, software-only suppliers, lowering sales volumes and profit margins of signmaking systems.

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- Gerber has responded to the competition with promotional pricing programs, modifying distribution methods, and introducing GERBER EDGE, a new product compatible only with Gerber's GRAPHIX ADVANTAGE signmaking system for customizing signs and manufacturing complex multi-colored signs.

Research and development expenses were approximately $21.7 million, $22.2 million, and $22.3 million for fiscal 1993, 1992, and 1991, respectively.

Revenue for the three months ending July 31, 1993 reached $64.9 million, a 4% increase over $62.4 million for the same period in 1992. Net income reached nearly $2.8 million (including a $788,000 gain from a change in the method of accounting for income taxes) compared to $1.5 million for the same period a year ago.

Market Financials

Approximately 70% of Gerber Scientific's fiscal 1993 revenue was derived from the discrete manufacturing industry and 30% from cross-industry signmaking and graphic arts applications.

Gerber Scientific's revenue is derived from clients in the apparel, automotive, aerospace, electronics, metalworking, footwear, printing, optical, graphic arts, silkscreen printing, and signmaking industries.

Gerber Scientific derived 100% of its fiscal 1993 revenue from CAD/CAM turnkey products and maintenance services. A three-year summary of source of revenue follows:

GERBER SCIENTIFIC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/93		4/92		4/91	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Product sales	$214.0	83%	$208.3	83%	$222.5	83%
Service	40.3	17%	41.7	17%	45.9	17%
TOTAL	**$254.3**	**100%**	**$250.0**	**100%**	**$268.4**	**100%**

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Geographic Markets

Approximately 52% of Gerber Scientific's fiscal 1993 revenue was derived from the U.S. and 48% from international sources (including export sales). A three-year summary of source of revenue follows:

GERBER SCIENTIFIC, INC.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/93		4/92		4/91	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$132.2	52%	$128.2	51%	$128.8	48%
International (a)	122.1	48%	121.8	49%	139.6	52%
TOTAL	**$254.3**	**100%**	**$250.0**	**100%**	**$268.4**	**100%**

(a) Includes export revenue of approximately $102.2 million, $101.3 million, and $114.9 million for fiscal 1993, 1992, and 1991, respectively.

Operations/ Structure

Gerber Scientific conducts its business through four wholly owned operating subsidiaries as follows:

- Gerber Garment Technology, Inc. (GGT) designs, develops, manufactures, markets, and services computer-controlled systems for materials handling, marker-making (nesting), cutting, and spreading of flexible materials such as fabrics and composites, in the apparel, aerospace, automotive, furniture, and other industries.

- Gerber Scientific Products, Inc. (GSP) designs, develops, manufactures, markets, and services microprocessor- and PC-controlled production systems for the signmaking, graphic arts, and silkscreen printing industries.

- The Gerber Systems Corporation (GSC) designs, develops, manufactures, markets, and services turnkey interactive design and production systems for the aerospace, automotive, electronics, industrial machinery, footwear, printing, and consumer products industries.

- Gerber Optical, Inc. designs, develops, manufactures, markets, and supports computer-controlled production systems for the optical-lens manufacturing industry.

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Major U.S. sales offices are in Atlanta, Chicago, Dallas, Detroit, Hartford, Los Angeles, and New York City. Numerous additional sales offices are in other metropolitan areas.

International subsidiaries are in Belgium, Germany, Italy, France, Portugal, the U.K., Sweden, Canada, Mexico, Australia, New Zealand, and Hong Kong.

Key Products and Services

A three-year summary of source of revenue by product line follows:

GERBER SCIENTIFIC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/93		4/92		4/91	
PRODUCT LINE	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Cutting, nesting, and material handling systems	$139.9	55%	$127.5	51%	$123.5	46%
Microprocessor- and PC-controlled production systems	76.3	30%	85.0	34%	93.9	35%
Interactive production, photoplotting, drafting, mechanical design, and manufacturing systems	28.0	11%	30.0	12%	42.9	16%
Optical-lens manufacturing systems	10.1	4%	7.5	3%	8.1	3%
TOTAL	**$254.3**	**100%**	**$250.0**	**100%**	**$268.4**	**100%**

Gerber Scientific's CAD/CAM product offerings are summarized by application area as follows:

CAD/CAM Cutting, Nesting, and Material-Handling Systems:

- The GERBERcutter[R] family of computer-controlled cutting systems cuts parts from single and multiple layers of flexible materials, such as textiles, vinyls, plastics, fiberglass, and advanced composite materials.
- GERBERlabeler[TM] labels pieces on the material prior to cutting.

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- GERBERspreader™ spreads fabric for cutting.
- AccuMark™ 200 and 500 systems are a PC DOS-based family of pattern design, pattern grading, and marker making systems.
- AccuMark 700 AWS (Advanced Workstation) is a UNIX workstation-based pattern design, pattern grading, and marker making system.
- AccuMark Silhouette™ systems allow the pattern maker to use a computer interactively to develop patterns using traditional pattern making tools and methods.
- AccuMark 700 File Server is a networking system that allows manufacturers to network different systems to a central data base controller and data storage.
- Creative Designer™, for apparel and allied industries, allows a designer, illustrator, or artist to create fashion illustrations using a computer, display screen, and peripheral devices for color input and output.
- AccuRoller™ 600 accepts large rolls of plotted markers, then rolls each marker individually, separates them by cutting each marker from the large roll, seals the separated marker, then deposits the market into a storage bin for retrieval.
- AccuMark Scan 100 is an automatic pattern input device.
- Creative Designer™ systems provide computer-aided design for the apparel and allied industries.
- GERBERmover® systems move and control the work flow among sewing operators.
- IMPACT™ systems support forecasting, costing, and production planning for the sewn-goods industry.
- AccuMark Spectrum™, Gerber's newest product, is a product management system that tracks products through the development cycle, along with production and quality requirements.
- AccuPlot™ series of plotters are digital-controlled high-speed flat-bed plotters.

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CAD/CAM Microprocessor- and PC-Controlled Production Systems:

These systems support the signmaking, silkscreen printing, and graphics industries with a range of automated lettering systems, scanners, digitizers, plotters, routers, and PC-based systems.

- The GRAPHIX ADVANTAGE™ system series is a complete sign and graphic design system based on a full range of 386 and 486 PC AT-compatible computers.
- Kanji GRAPHIX ADVANTAGE, introduced in 1992, is a signmaking system specifically designed for the Japanese market.
- Dimension 200™, introduced in 1992, is a small tabletop routing system that can rout, engrave, plot, and stencil-cut letters.
- ADVANTAGE Router™ 400 and ADVANTAGE Router 600 are large-area routers that interface with Gerber's PC-based GRAPHIX ADVANTAGE. These machines can cut any routable material, including plastic, metal, and wood.
- Signer™ is an economical desktop lettering system targeted to schools, hospitals, corporations, government agencies, museums, and other markets to provide directional signage.
- ScreenJet™ is a PostScript-compatible screen imaging system for textile screenprinting. The system images directly from a Macintosh, GRAPHIX ADVANTAGE, IBM PC, or compatible system onto an emulsion-coated screen.
- GERBER EDGE™, introduced in 1993, is a new output device for the sign, screenprinting, and graphics industries that creates continuous length, durable, professional-quality text and graphics on perforated vinyl.
- Gerber also offers a range of aftermarket supplies, including a library of over 300 type styles for signmaking, adhesive-backed vinyls, films, and other materials.

CAD/CAM Interactive Photoplotting, Drafting, Mechanical Design, and Manufacturing Systems:

Gerber's interactive photoplotting systems are task-oriented, computer-based systems that automate the production of artwork, tooling, and documentation for printed circuit boards (PCBs), and the preparation of printing plates.

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- Gerber laser photoplotters draw with a beam of light on photographic film or glass.
- Crescent/30™ Laser Photoplotter provides economical output for IBM PC-CAD or UNIX systems.
- Crescent/42™ PlateSetter provides up to eight pages of complete direct-to-plate laser imaging.
- The LE55 laser imager for the printing industry is used to expose printing plates directly.
- Gerber's drafting systems are used to automate the production of engineering drawings for the automotive, aerospace, shipbuilding, mapmaking, and other industries. The systems include a control unit and a plotter.
- The SABRE-5000™ is Gerber's current generation of mechanical design and computer-integrated manufacturing systems and is based on the UNIX operating system.
- ShoeMaker™ automates footwear design, pattern engineering, grading, and up-front manufacturing.

CAD/CAM Optical-Lens Manufacturing Systems:

The Optical Manufacturing System (OMS) is a microprocessor-based product line that produces accurate plastic ophthalmic eyeglass lenses.

Marketing and Sales

Most of Gerber Scientific's product sales are to end-users and are sold through the company's direct sales force in the U.S., subsidiaries in Europe, Canada, Mexico, Australia, New Zealand, and the Far East, and independent sales representatives and distributors in various parts of the world.

Gerber's microprocessor- and PC-controlled production systems are sold principally to independent distributors for resale by them.

Domestic sales personnel are located in a number of cities, including Hartford, New York, Atlanta, Chicago, Detroit, Dallas, and Los Angeles.

Foreign sales and service subsidiaries are in Belgium, Germany, Italy, France, Portugal, the U.K., Sweden, Canada, Mexico, Australia, New Zealand, and Hong Kong.

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Competitors

In mechanical design and manufacturing systems, Gerber Scientific competes with companies offering middle- to high-end solutions. Major competitors include IBM, Computervision, Intergraph, Hewlett-Packard, and Schlumberger.

In footwear design engineering and manufacturing systems, the company competes with various domestic and foreign companies.

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GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, CT 06074
(203) 644-1551

H. Joseph Gerber, Chairman and President
Public Corporation, NYSE
Total Employees: 1,700 (4/91)
Total Revenue, Fiscal Year End
4/30/91: $268,367,000

The Company

Gerber Scientific, Inc., founded in 1948, develops, markets, and supports CAD/CAM turnkey systems to automate the design and production processes in a range of industries, including apparel, automotive, aerospace, electronics, metalworking, footwear, printing, optics, graphic arts, and signmaking.

Gerber Scientific conducts its business through five principal operating subsidiaries as follows:

- The Gerber Scientific Instrument Company (GSI) designs, develops, manufactures, markets, and services turnkey interactive production systems and computer-controlled drafting and photoplotting systems that automate the production of phototooling and other documentation for printed circuit boards, film page layouts for the graphic arts industry, printing plates for the newspaper industry, and engineering drawings for a variety of applications.

- Gerber Garment Technology, Inc. (GGT) designs, develops, manufactures, markets, and services computerized systems for materials handling, marker-making (nesting), cutting, and spreading of flexible materials such as fabrics and composites, in the apparel, aerospace, automotive, furniture, and other industries.

- Gerber Systems Technology, Inc. (GST) designs, develops, manufactures, markets, and services turnkey systems for computer-aided mechanical design, manufacturing, data management, and factory automation applications in the aerospace, automotive, industrial machinery, footwear, and consumer products industries.

- Gerber Scientific Products, Inc. (GSP) designs, develops, manufactures, markets, and services microprocessor-controlled production systems, principally for the signmaking and graphic arts industries.

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- Gerber Optical, Inc. designs, develops, manufactures, markets, and supports computer-controlled production systems for the optical-lens manufacturing industry.

Fiscal 1991 revenue was $268.4 million, a 13% decrease from fiscal 1990 revenue of $307.2 million. Net income was nearly $8 million, compared to $32.4 million in fiscal 1990. A five-year financial summary follows:

GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	4/91	4/90	4/89	4/88	4/87
Revenue	$268.4	$307.2	$299.3	$264.0	$223.9
· Percent increase (decrease) from previous year	(13%)	3%	13%	18%	17%
Income before taxes	$12.3	$49.8	$50.9	$46.0	$34.5
· Percent increase (decrease) from previous year	(75%)	(2%)	11%	34%	16%
Net income	$8.0	$32.4	$32.9	$29.6	$21.1
· Percent increase (decrease) from previous year	(75%)	(2%)	11%	41%	16%
Earnings per share	$0.34	$1.36	$1.35	$1.15	$0.81
· Percent increase (decrease) from previous year	(75%)	1%	17%	42%	16%

Fiscal 1991 results were attributed to the following:

- Product sales declined 15% due to a poor economic environment, particularly in North America. Domestic and Canadian sales declined 17% from the prior year while sales outside North American declined 8%.

  - The adverse economic conditions in North America included tighter credit availability and a number of bankruptcies in the retail and apparel industries, both of which dampened capital spending and customer demand for Gerber's products.

  - Competition in certain foreign markets was particularly intense, resulting in price discounting. In addition, product

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sales in the Soviet Union and Eastern European markets were disrupted by the political changes in process in those regions.

- Declines in net income were attributed to revenue declines. During the year, Gerber management reduced employment by about 20%, consolidated manufacturing facilities, and took other cost reduction actions.

Research and development expenditures (including net capitalized amounts) were approximately $21.5 million, $20.8 million, and $19.7 million, for fiscal 1991, 1990, and 1989, respectively. Gerber Scientific also received and spent approximately $250,000, $3.5 million, and $2.6 million for fiscal 1991, 1990, and 1989, respectively, for customer-funded research and development projects.

Revenue for the three months ending July 31, 1991 reached $66.1 million, a 1% decrease from $66.6 million for the same period in 1990. Net income rose 13%, from $2.7 million to nearly $3.1 million.

Key Products and Services

Gerber Scientific derived 100% of its fiscal 1991 revenue from CAD/CAM turnkey products and maintenance services. A three-year summary of source of revenue follows:

GERBER SCIENTIFIC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/91		4/90		4/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Product sales	$222.5	83%	$261.7	85%	$252.8	84%
Service	45.9	17%	45.5	15%	46.5	16%
TOTAL	**$268.4**	**100%**	**$307.2**	**100%**	**$299.3**	**100%**

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A further breakdown of sales and services revenue by product line follows ($ millions):

	FISCAL YEAR					
	4/91		4/90		4/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Cutting, nesting, and material handling systems	$123.5	46%	$138.2	45%	$125.7	42%
Microprocessor-controlled production systems	93.9	35%	104.4	34%	110.7	37%
Interactive production, drafting, and photo-plotting systems	26.8	10%	46.1	15%	47.9	16%
Interactive mechanical design, manufacturing, and data management systems	16.1	6%	12.3	4%	12.0	4%
Optical-lens manufacturing systems	8.1	3%	6.2	2%	3.0	1%
TOTAL	**$268.4**	**100%**	**$307.2**	**100%**	**$299.3**	**100%**

Gerber Scientific's CAD/CAM product offerings are summarized by application area as follows:

Cutting, Nesting, and Material-Handling Systems:

- The GERBERcutter® family of computer-controlled cutting systems cuts parts from single and multiple layers of flexible materials, such as textiles, vinyls, plastics, fiberglass, and advanced composite materials.
- GERBERlabeler™ labels pieces on the material prior to cutting.
- AccuMark™ 300 is a PC MS-DOS-based family of pattern design, pattern grading, and marker-making systems.
- AccuMark 700 KWS is a UNIX workstation-based pattern design, pattern-grading, and marker-making system.
- AccuMark Silhouette™ is a single-station GERBERmarker system

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- AccuMark 700 File Server is a network system that allows manufacturers to network different systems (including GERBERmarker systems) to a central data base controller and data storage.

- Creative Designer™, for apparel and allied industries, allows a designer, illustrator, or artist to create fashion illustrations using a computer, display screen, and peripheral devices for color input and output.

- GERBERmover® systems move and control the work flow among sewing operators.

- IMPACT™ systems work with GERBERmover systems for forecasting, costing, and production planning.

- The GERBERsaver™ increases material use by reducing the waste caused by the elimination of flaws.

- AccuPlot™ series of plotters are digital-controlled high-speed flat-bed plotters.

Microprocessor- and PC-Controlled Production Systems:

These systems support the signmaking, screenprinting, and graphics industries with a range of automated lettering systems, scanners, digitizers, plotters, routers, and PC-based systems.

- The GRAPHIX ADVANTAGE™ is a PC-based automated sign system for creating uniform lettering.

- Signer™ is a desktop signmaking system targeted at new markets, including the corporate, health care, government, office, and manufacturing sectors.

- Gerber also offers a range of aftermarket supplies, including a library of over 300 type styles for signmaking, adhesive-backed vinyls, films, and other materials.

Interactive Production, Drafting, and Photoplotting Systems:

Gerber's interactive production systems are task-oriented, computer-based systems that automate the production of artwork, tooling, and documentation for printed circuit boards (PCBs); preparation of film masks and paste-up mechanicals in the graphic arts industry; and the preparation of printing plates in the newspaper industry.

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- Gerber photoplotters draw with a beam of light on photographic film or glass.

- Automatic optical inspection systems are used to inspect and qualify high-density printed wiring devices and phototooling.

- Gerber's drafting systems are used by automotive, aerospace, shipbuilding, mapmaking, and other industries.

Interactive Mechanical Design, Manufacturing, and Data Management Systems:

These systems support the design and manufacture of discrete components and tooling for the aerospace, automotive, and industrial machinery industries; tools, dies, and molds of various types; shoe lasts for the footwear industry; thermoplastic formed parts for industrial and consumer products; and turbomachinery parts for complex multiaxis N/C machining.

- The SABRE-5000™ is the current generation of systems and is based on the UNIX operating system. Models are available for Hewlett-Packard computers and Silicon Graphics (Personal Iris) workstations.

- OASSIS™ is a software product that creates and manages manufacturing operations and set-up sheets and related electronic shop floor documentation.

- ShoeMaker™ automates footwear design, pattern engineering, grading, and up-front manufacturing.

Optical-Lens Manufacturing Systems:

The Optical Manufacturing System (OMS) is a microprocessor-based product line that produces accurate plastic ophthalmic eyeglass lenses.

Gerber provides maintenance services to its clients through a worldwide field service force.

Industry Markets

Approximately 65% of Gerber Scientific's fiscal 1991 revenue was derived from the discrete manufacturing industry and 35% from cross-industry signmaking and graphic arts applications.

Gerber Scientific's revenue is derived from clients in the apparel, automotive, aerospace, electronics, metalworking, footwear, printing, optics, graphic arts, and signmaking industries.

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Geographic Markets

Approximately 48% of Gerber Scientific's fiscal 1991 revenue was derived from the U.S., and 52% from international sources (including export sales to Europe, the Far East, and other countries).

Major U.S. sales offices are in Atlanta, Chicago, Dallas, Detroit, Hartford, Los Angeles, New York City, and Washington D.C. Numerous additional sales offices are in other metropolitan areas.

Foreign sales and service subsidiaries are in Belgium, Germany, Italy, France, Portugal, the U.K., Sweden, Canada, Mexico, Japan, Australia, New Zealand, and Hong Kong.

Independent sales representatives sell Gerber Scientific products in other parts of the world.

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GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, CT 06074
(203) 644-1551

H. Joseph Gerber, President
Public Corporation, NYSE
Total Employees: 2,050 (4/89)
Total Revenue, Fiscal Year End
4/30/89: $299,339,000

The Company

Gerber Scientific, Inc., founded in 1948, develops, markets, and supports CAD/CAM turnkey systems to automate the design and production processes in a range of industries, including apparel, automotive, aerospace, electronics, metalworking, printing, optical, graphic arts, and signmaking.

Gerber Scientific conducts its business through four principal operating subsidiaries as follows:

- The Gerber Scientific Instrument Company (GSI) designs, develops, manufactures, markets, and services turnkey interactive production systems and computer-controlled drafting and photoplotting systems which automate the production of phototooling and other documentation for printed circuit boards, film page layouts for the graphic arts industry, printing plates for the newspaper industry, and engineering drawings for a variety of applications.

- Gerber Garment Technology, Inc. (GGT) designs, develops, manufactures, markets, and services computerized systems for the handling, nesting, cutting, and spreading of flexible materials such as fabrics and composites, in the apparel, aerospace, automotive, footwear, furniture, and other industries.

- Gerber Systems Technology, Inc. (GST) designs, develops, manufactures, markets, and services turnkey systems for computer-aided mechanical design, manufacturing, and data management applications in the aerospace, automotive, industrial machinery, and consumer products industries.

- Gerber Scientific Products, Inc. (GSP) designs, develops, manufactures, markets, and services microprocessor-controlled production systems, principally for the signmaking, graphic arts, and optical lens manufacturing industries.

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In December 1987, Gerber Scientific's GSI subsidiary acquired Cambridge Robotic Systems, Inc. (CRSI), for $3 million.

- CRSI designs and manufactures automatic optical inspection systems used in the inspection and qualification of high density printed wiring devices and phototooling.

In December 1987, Gerber Scientific's GSP subsidiary established Gerber Optical, which develops, produces, and markets optical lens manufacturing products.

Gerber Camsco, Inc. was merged into its parent company, GGT, effective April 30, 1987.

Fiscal 1989 revenue reached $299.3 million, a 13% increase over fiscal 1988 revenue of $264 million. Net income rose 11%, from $29.6 million in fiscal 1988 to $32.9 million in fiscal 1989. A five-year financial summary follows:

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GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	4/89	4/88	4/87	4/86	4/85
Revenue	$299,339	$263,983	$223,854	$191,786	$224,158
• Percent increase (decrease) from previous year	13%	18%	17%	(14%)	29%
Income before taxes	$50,852	$46,012	$34,357	$29,690	$43,859
• Percent increase (decrease) from previous year	11%	34%	16%	(32%)	74%
Net income	$32,852	$29,612	$21,057	$18,190	$25,059
• Percent increase (decrease) from previous year	11%	41%	16%	(27%)	71%
Earnings per share	$1.35	$1.15	$0.81	$0.70	$0.97
• Percent increase (decrease) from previous year	17%	42%	16%	(28%)	54%

(a) Restated to reflect a three-for-two stock split to shareholders of record June 22, 1987.

Research and development expenditures (including net capitalized amounts) were approximately $19.7 million, $18.4 million, and $17.8 million for fiscal 1989, 1988, and 1988, respectively. Gerber Scientific also received and spent approximately $2.6 million, $3.3 million, and $1.9 million for fiscal 1989, 1988, and 1987, respectively, for customer-funded research and development projects.

Revenue for the six months ending October 31, 1989 was $150 million, a 6% increase over $141.1 million for the same period in 1988. Net income for the period increased 3%, from $15.3 million to $15.8 million.

Key Products and Services

Gerber Scientific derived 100% of its fiscal 1989 revenue from CAD/CAM turnkey products and maintenance services. A three-year summary of source of revenue follows:

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GERBER SCIENTIFIC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/89		4/88		4/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Product sales	$252.8	84%	$218.1	83%	$182.0	81%
Service	46.5	16%	45.9	17%	41.8	19%
TOTAL	**$299.3**	**100%**	**$264.0**	**100%**	**$223.8**	**100%**

A further breakdown of sales and services revenue by product line follows ($ millions):

	FISCAL YEAR					
	4/89		4/88		4/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Interactive production, drafting, and photo-plotting systems	$47.9	16%	$42.2	16%	$44.8	20%
Cutting, nesting, and material handling systems	125.7	42%	118.8	45%	94.0	42%
Interactive mechanical design and manufacturing systems	12.0	4%	13.2	5%	13.4	6%
Microprocessor-controlled production systems	113.7	38%	89.8	34%	71.6	32%
TOTAL	**$299.3**	**100%**	**$264.0**	**100%**	**$223.8**	**100%**

Gerber Scientific, Inc. markets the following products:

- Gerber Garment Technology (GGT)
  - The Gerber Creative Designer™, released in 1988, enables

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fashion designers to view and modify their creations on-screen in different colors and fabrics.

- The GERBERspreader®, released in 1988, is a fabric management system designed especially for fabric spreading. It provides enhanced fabric utilization and increased cutting room efficiency.

- The AccuMark 300™, released in 1988, is a microcomputer-based grading and marking system. It features pattern design, automatic sizing, marker making, and GERBERcutter data generation.

- The AM-5 3200™ Series Design, Grading, and Marking System, released in 1988, is a minicomputer-based multitasking, multiuser system designed to maximize fabric utilization and minimize style turnaround time.

- The AccuPlot 300™ and AccuPlot 700™ High Speed Pen Plotters are high quality plotters, compatible with the AccuMark 300 and AM-5.

- GERBERmover® GM-100 and GM-200 systems used computerized instruction to move and control the work flow among sewing operators in the apparel and allied industries.

- GERBERcutter® systems automatically cut precise parts out of layers of flexible material such as textiles, leathers, vinyls, plastics, fiberglass, and advanced composite materials. The systems use Hewlett-Packard 1000 Model 2113E minicomputers.

  - The GERBERcutter S-95 low- and medium-ply cutter is the newest addition to Gerber's automated cutting systems.

  - The GERBERcutter S-93 cuts medium plies of fabric from a half inch to two inches of compressed thickness.

  - The GERBERcutter S-91 and S-93 traveling conveyor systems feature a conveyorized cutting surface that can be moved from one spreading table to another.

- The MM-5™ is an intermediate-priced grading and marker making system.

- The GERBERsaver™ is designed to increase material use

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by reducing the amount of waste when eliminating flaws discovered in material.

- The GERBERlaser™ is a cutter for the footwear industry.

- The Gerber Mechanical Pattern Cutter eliminates the handcutting of patterns in the shoe industry.

- The GM-510™ Pattern Grading and Engineering System is a grading system that grades and plots shoe pattern parts.

- The Apex II® Grading and Design System is an interactive design system for the shoe industry.

- CP-600™ is a Hewlett-Packard-based data management system that automatically matches marker combinations against fabric utilization and cutting costs to achieve the most effective and lowest cost apparel production order.

- GGT's Gerber Camsco, Inc. systems include the following:

  - The AM-5 Color Pattern Grading and Marker Making System, introduced in 1982, is a low-cost turnkey nesting, pattern grading, and marker-making system designed for use by apparel manufacturing firms of all sizes. The system uses a Hewlett-Packard 1000 Model A-600 minicomputer, a digitizer, a plotter pattern cutter, and a graphics workstation.

  - The GRADAMATIC-5®, introduced in 1983, is a high-performance, low-cost grading and pattern-cutting system for smaller apparel manufacturers. It includes a Hewlett-Packard microcomputer, a digitizer, cutter plotter, and optional minigraphics display. The system is upgradable to a full-design and marker-making system.

  - The MARKAMATIC®-5000 is a pattern-making and nesting system that has been further developed into the COMMAND 1000 system for the aerospace and metalworking industries. These systems include a Hewlett-Packard 1000 Model A-600 minicomputer. The COMMAND 1000 system has a built-in accounting and reporting system; it monitors raw stock and inventory levels and includes a cutting management system for control of cutting operations.

  - The APEX II system provides the footwear industry with a style development capability. It is based on a Hewlett-

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Packard 1000 Model A-600 minicomputer. Features include interactive pattern design, shell grading for upper and lower components, three-dimensional entry for style and mold generation, cost analysis, multicolor plotting, and pattern cutting.

- Gerber Scientific Instrument Company (GSI)
  - CAMtec II™ is a MicroVAX-based CAD system for the design and manufacture of tooling requirements for printed circuit board fabrication.
  - The LDI 9620™ is a laser photoplotter that creates phototool plans for circuit board design and manufacturing.
  - The 1850 Automatic Optical Inspection System™ inspects printed circuit boards for fabrication defects by comparing the printed wiring board to the original design data base.
  - CIMS 9000™ is a computer-integrated manufacturing system that collects, converts, stores, and distributes design and manufacturing data to CAD systems, numerically controlled (N/C) machines, drill machines, and GSI plotting systems.
  - The 2600 VectorScan™ is a high speed scanner that converts printed circuit board artwork into digital computer data.
  - AutoPrep systems automate the film mask preparation process in the graphic arts industry.
  - The PC 800 Model 4™ is an interactive turnkey production system designed for manufacturers of printed circuit boards. The system generates artwork masters, solder masks, production masters, silkscreen masters, component drawings, parts lists, net lists, and bill of materials, as well as N/C drill tapes and N/C tapes for automatic component insertion and sequencer machines.
    - The system features color graphics option to differentiate multilayers of design with seven different colors on a large raster scan display. It incorporates GSI digitizers, plotters, photoplotters, and a Hewlett-Packard 1000 Model 2113E or 2114E minicomputer.
  - The Gerber Model 3234 UltraPLOTTER, introduced in fiscal 1989, is a large area photoplotter for the production of high-density printed circuit board artwork.

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- The Model 9725 Laser Photoplotter and Controller, also announced during fiscal 1989, is a high performance printed circuit board imaging system.

- The Model 41 Printed Circuit Board Photoplotter™ produces printed circuit board artwork masters and associated manufacturing aids for single, two-sided, and multilayer boards.

- GSI produces a range of flatbed and drum plotters of varying sizes, speeds, and accuracies.

• Gerber Scientific Products (GSP)

- Gerber Optical, markets products that manufacture plastic eyeglass lenses.

  • In 1986, the Optical Manufacturing System (OMS™) was introduced. It is a microprocessor-based system that produces patterns for use in shaping ophthalmic eyeglass lenses to fit their frames. The system includes a Frame Tracer™, which records the shape of the frame lens opening, and a Pattern Generator, which machines a disposable plastic pattern to the required shape.

  • OMS/Network provides direct communications between the optician and the optical lab.

  • The OMS Surface Generator is a computerized machine tool used solely for plastic eyeglass lens manufacture.

  • The OMS Lens Edger uses the data from the OMS Frame Tracer to cut and bevel the lens to fit the eyeglass frames.

- GerberScanner II®, released in 1989, automatically transforms scanned images into data files ready for cutting into permanent sign-face films on GSP's microprocessor-controlled signmaking and graphic arts systems.

- GerberTracer™, released in 1989, is a microcomputer-based digitizing system that allows the creation of graphics from an original piece of artwork.

- LetterSmith™, released in 1989, is a desktop lettering system that cuts letters from a variety of adhesive-backed materials which can then be applied to any smooth surface.

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- The HS 750™ is a high-speed plotter for the signmaking industry. It produces high-quality lettering up to 30" high.

- SuperSprint™, released in 1988, is a high-speed, automated vinyl film cutting system for the signmaking and graphic arts industries.

- The S/4E Engraver/Router™ engraves on a variety of materials and also routs three-dimensional letters and designs.

- The computerized SPRINT 48™ manufactures signs with relief or stencil-out lettering from wood, brass, aluminum, plexiglass, and other materials.

- The Signmaker® IVB and Graphix 4B are second generation microprocessor-based systems for cutting pre-spaced letters and graphic elements and feature plug-in program module cartridges. Modules are available for autolayout and letter outlining.

• Gerber Systems Technology (GST)

- SABRE-5000™ is the current generation of high-performance workstations and software for mechanical design, metalworking, and related applications. It features the UNIX operating system and an open software architecture for third-party and user-developed programs.

  • SABRE-5000 CAD software includes products for wireframe and shaded surface geometric modeling, drafting of design details and dimension, composition and layout of engineering drawings, generation of parts lists and bills of material, and automated output of drawings via pen plotters and electrostatic plotting machines.

  • SABRE-5000 manufacturing software supports graphic generation of toolpath data for N/C profiling, pocketing, lathe operations, and multi-axis machining of complex surfaces.

  • The company has a Value-Added Reseller (VAR) agreement with Hewlett-Packard for the SABRE-5000 software.

- Previous systems include the Autograph single-terminal, single-tasking workstation; the IDS-80, a multi-terminal

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shared logic system; and the SRM-1 Shared Resource Manager, a network product. Parts files can be communicated in both directions between these older systems and the SABRE-5000.

Gerber provides maintenance services to its clients through a worldwide field service force.

Industry Markets

Approximately 62% of Gerber Scientific's fiscal 1989 revenue was derived from the discrete manufacturing industry and 38% from cross-industry signmaking and graphic arts applications.

Gerber Scientific's revenue is derived from clients in the apparel, automotive, aerospace, electronics, metalworking, printing, optical, graphic arts, and signmaking industries.

Geographic Markets

Approximately 48% of Gerber Scientific's fiscal 1989 revenue was derived from the U.S., and 52% from international sources. A three-year geographic source of revenue summary follows:

GERBER SCIENTIFIC, INC.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/89		4/88		4/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$144.2	48%	$123.3	47%	$119.0	53%
Europe	85.0	29%	83.2	31%	61.8	28%
Far East	45.7	15%	38.7	15%	30.2	14%
Other (a)	24.4	8%	18.8	7%	12.9	5%
TOTAL	**$299.3**	**100%**	**$264.0**	**100%**	**$223.9**	**100%**

(a) Includes revenue from Canada, Latin America, and other countries who contributed less than 1% to revenues.

Major U.S. sales offices are located in Atlanta, Chicago, Dallas, Detroit, Hartford, Los Angeles, New York City, and Washington

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D.C. Additional sales offices are located in numerous metropolitan areas.

Western European subsidiary sales and service subsidiaries are located in Belgium, France, West Germany, Italy, Sweden, and the U.K. Additional sales and service subsidiaries are in Australia, New Zealand, Hong Kong, Japan, and Canada.

- During the first quarter of fiscal 1990, two new foreign subsidiaries were formed. GST Far East Ltd. was established in Hong Kong to be responsible for GST sales and customer support in the Pacific Rim. GGT International de Mexico SA de CV was set up to perform the same functions for GGT's products in Mexico and Central America.

Gerber Scientific's products are also sold in other parts of the world by independent sales representatives.

Computer Hardware and Software

Gerber Scientific has the following equipment installed:

- 2 HP 3000s Series 70, operating under MPE V, at its South Windsor headquarters
- 1 HP 3000 Series 48, operating under MPE V, at Gerber Europe in Belgium
- 1 HP 3000, operating under MPE V, at Gerber Camsco in Texas
- 2 HP 3000s Series 58 and 70 operating under MPE V at GSP

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GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, CT 06074
(203) 644-1551

H. Joseph Gerber, President
Public Corporation, NYSE
Total Employees: 2,000
Total Revenue, Fiscal Year End
4/30/88: $263,983,000

The Company

Gerber Scientific, Inc., founded in 1948, develops CAD/CAM products in computer-controlled drafting and photoplotting, signmaking, graphic arts, optical systems, interactive design, computerized marker making, material cutting and handling, turnkey interactive graphic production systems which integrate several design and manufacturing processes, and microprocessor-controlled production systems.

Gerber Scientific conducts its business through four principal operating subsidiaries as follows:

- The Gerber Scientific Instrument Company (GSI) designs, develops, manufactures, markets, and services turnkey interactive production systems and computer-controlled drafting and photoplotting systems which automate the production of phototooling and other documentation for printed circuit boards, film page layouts for the graphic arts industry, printing plates for the newspaper industry, and engineering drawings for a variety of applications.

- Gerber Garment Technology, Inc. (GGT) designs, develops, manufactures, markets, and services computerized systems for handling, nesting, and cutting flexible materials such as fabrics and composites, in the apparel, aerospace, automotive, footwear, furniture, and other industries.

- Gerber Systems Technology, Inc. (GST) designs, develops, manufactures, markets, and services turnkey interactive design and data management systems for a wide range of mechanical and electronic design and manufacturing applications.

- Gerber Scientific Products, Inc. (GSP) designs, develops, manufactures, markets, and services microprocessor-controlled production systems, principally for the signmaking, graphic arts, and optical lens manufacturing industries.

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In December 1987, Gerber Scientific's GSI subsidiary acquired Cambridge Robotic Systems, Inc. (CRSI), for $3 million.

- CRSI designs and manufactures automatic optical inspection systems used in the inspection and qualification of high density printed wiring devices and phototooling.

In December 1987, Gerber Scientific's GSP subsidiary established Gerber Optical, which develops, produces, and markets optical lens manufacturing products.

Gerber Camsco, Inc. was merged into its parent company, GGT, effective April 30, 1987.

Fiscal 1988 revenue reached $264 million, an 18% increase over 1987 revenue of $223.9 million. Net income rose 41% to $30 million in 1988 from $21 million in 1987. A five-year financial summary follows:

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GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	4/88	4/87	4/86	4/85	4/84
Revenue	$263,983	$223,854	$191,786	$224,158	$173,593
• Percent increase (decrease) from previous year	18%	17%	(14%)	29%	48%
Income before taxes	$46,012	$34,357	$29,690	$43,859	$25,277
• Percent increase (decrease) from previous year	34%	16%	(32%)	74%	242%
Net income (loss)	$29,612	$21,057	$18,190	$25,059	$14,677
• Percent increase (decrease) from previous year	41%	16%	(27%)	71%	225%
Earnings (loss) per share	$1.15	$0.81	$0.70	$0.97	$0.63
• Percent increase (decrease) from previous year	42%	16%	(28%)	54%	197%

(a) Restated to reflect a three-for-two stock split to shareholders of record June 22, 1987.

Research and development expenditures were approximately $18.4 million (7% of revenue) in 1988, compared to $17.8 million (8% of revenue) in 1987, and $17.8 million (9% of revenue) in 1986.

Revenue for the nine months ending January 31, 1989 was $219.5 million, a 12.5% increase from $195.0 million for the same period in 1987-88. Net income for the period increased 10% from $21.7 million to $23.8 million.

Key Products and Services

Gerber Scientific derived 100% of its fiscal 1988 revenue from CAD/CAM turnkey products and maintenance services. A three-year summary of source of revenue follows:

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GERBER SCIENTIFIC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/88		4/87		4/86	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Product sales	$218.1	83%	$182.0	81%	$154.8	81%
Service	$45.9	17%	$41.8	19%	$36.9	19%
TOTAL	**$264.0**	**100%**	**$223.8**	**100%**	**$191.7**	**100%**

A further breakdown of sales and services revenue by product line follows ($ millions):

	FISCAL YEAR					
	4/88		4/87		4/86	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Interactive production, drafting, and photo-plotting systems	$42.2	16%	$44.8	20%	$47.9	25%
Cutting, nesting, and material handling systems	$118.8	45%	$94.0	42%	$69.0	36%
Interactive design and data management systems	$13.2	5%	$13.4	6%	$21.1	11%
Microprocessor-controlled production systems	$89.8	34%	$71.6	32%	$53.7	28%
TOTAL	**$264.0**	**100%**	**$223.8**	**100%**	**$191.7**	**100%**

Gerber Scientific, Inc. markets the following products by division:

- Gerber Garment Technology (GGT)
  - The Gerber Creative Designer™, released in 1988, enables

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fashion designers to view and modify their creations on-screen in different colors and fabrics.

- The GERBERspreader[R], released in 1988, is a fabric management system designed especially for fabric spreading. It provides enhanced fabric utilization and increased cutting room efficiency.

- The AccuMark 300[TM], released in 1988, is a microcomputer-based grading and marking system. It features pattern design, automatic sizing, marker making, and GERBERcutter data generation.

- The AM-5 3200[TM] Series Design, Grading, and Marking System, released in 1988, is a multitasking, multiuser system designed to maximize fabric utilization and minimize style turnaround time.

- The AccuPlot 300[TM] and AccuPlot 700[TM] High Speed Pen Plotters are high quality plotters, compatible with the AccuMark 300 and AM-5.

- GERBERmover[R] GM-100 and GM-200 replace the GERBERmover as GGT's computer-controlled material handling and requirements planning system. Features include end-of-line sorting and subroutings.

- GERBERcutter[R] systems automatically cut precise parts out of layers of flexible material such as textiles, leathers, vinyls, plastics, fiberglass, and advanced composite materials. The systems use Hewlett-Packard 1000 Model 2113E minicomputers.

  - The GERBERcutter S-95 low-ply cutter is the newest addition to Gerber's automated cutting systems.

  - The GERBERcutter S-93 cuts medium plies of fabric from a half inch to two inches of compressed thickness.

  - The GERBERcutter S-91, introduced in 1978, uses the Knife Intelligence system to minimize inaccuracies caused by knife blade deflections, allowing precision cutting of up to three inches of compressed layers of material.

  - The GERBERcutter S-91 Traveling Conveyor, introduced in 1982, is a computer-aided cutting system

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with a conveyorized cutting surface that can be moved from one spreading table to another.

- The MM-5™ is an intermediate-priced grading and marker making system.

- The GERBERsaver™ is designed to increase material use by reducing the amount of waste when eliminating flaws discovered in material.

- The GERBERlaser™ is a cutter for the footwear industry.

- The Gerber Mechanical Pattern Cutter eliminates the handcutting of patterns in the shoe industry.

- The GM-510™ Pattern Grading and Engineering System is a grading system that grades and plots shoe pattern parts.

- The Apex II® Grading and Design System is an interactive design system for the shoe industry.

- In 1982, GGT introduced CP-600™, a Hewlett-Packard-based data management system that automatically matches marker combinations against fabric utilization and cutting costs to achieve the most effective and lowest cost apparel production order.

- GGT's Gerber Camsco, Inc. systems include the following:

  - The AM-5 Color Pattern Grading and Marker Making System, introduced in 1982, is a low-cost turnkey nesting, pattern grading, and marker-making system designed for use by apparel manufacturing firms of all sizes. The system uses a Hewlett-Packard 1000 Model A-600 minicomputer, a digitizer, a plotter pattern cutter, and a graphics workstation.

  - The GRADAMATIC-5®, introduced in 1983, is a high-performance, low-cost grading and pattern-cutting system for smaller apparel manufacturers. It includes a Hewlett-Packard microcomputer, a digitizer, cutter plotter, and optional minigraphics display. The system is upgradable to a full-design and marker-making system.

  - The MARKAMATIC®-5000 is a pattern-making and nesting system that has been further developed into the COMMAND 1000 system for the aerospace and metalworking industries. These systems include a

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Hewlett-Packard 1000 Model A-600 minicomputer. The COMMAND 1000 system has a built-in accounting and reporting system; it monitors raw stock and inventory levels and includes a cutting management system for control of cutting operations.

- The APEX II system provides the footwear industry with a style development capability. It is based on a Hewlett-Packard 1000 Model A-600 minicomputer. Features include interactive pattern design, shell grading for upper and lower components, three-dimensional entry for style and mold generation, cost analysis, multicolor plotting, and pattern cutting.

- Gerber Scientific Instrument Company (GSI)

  - CAMtec II™ is a CAD system for the design and manufacture of tooling requirements for printed circuit board fabrication.

  - The LDI 9620™ is a laser photoplotter that creates phototool plans for circuit board design and manufacturing.

  - The 1850 Automatic Optical Inspection System™ inspects printed circuit boards for fabrication defects by comparing the printed wiring board to the original design data base.

  - CIMS 9000™ is a computer-integrated manufacturing system that collects, converts, stores, and distributes design and manufacturing data to CAD systems, numerically controlled (N/C) machines, drill machines, and GSI plotting systems.

  - The VDS 2500™ video digitizing system picks up and follows each line on a drawing and translates it into computer data for editing at the workstation.

  - AutoPrep 5000®, introduced in 1981, is a turnkey CAD system for automating film mask preparation in the graphic arts industry. Features include a stream digitizing and silhouetting capability.

    - The system incorporates a turnkey CAD workstation, a photo drum plotter, and a Hewlett-Packard minicomputer.

  - The PC 800 Model 4™ is an interactive turnkey production system designed for manufacturers of printed circuit boards.

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The system generates artwork masters, solder masks, production masters, silkscreen masters, component drawings, parts lists, net lists, and bill of materials, as well as N/C drill tapes and N/C tapes for automatic component insertion and sequencer machines.

  - The system features color graphics option to differentiate multilayers of design with seven different colors on a large raster scan display. It incorporates GSI digitizers, plotters, photoplotters, and a Hewlett-Packard 1000 Model 2113E or 2114E minicomputer.

- The Gerber Model 4135 Laser-Directed Photoplotter™, introduced in late 1982, is a high-precision photoplotter for the production of high-density printed circuit boards.

- The Model 41 Printed Circuit Board Photoplotter™ produces printed circuit board artwork masters and associated manufacturing aids for single, two-sided, and multilayer boards.

- GSI produces a range of flatbed and drum plotters of varying sizes, speeds, and accuracies.

- Gerber Scientific Products (GSP)

  - Gerber Optical, markets products that manufacture plastic eyeglass lenses.

    - In 1986, the Optical Manufacturing System (OMS™) was introduced. It is a microprocessor-based system that produces patterns for use in shaping ophthalmic eyeglass lenses to fit their frames. The system includes a Frame Tracer™, which records the shape of the frame lens opening, and a Pattern Generator, which machines a disposable plastic pattern to the required shape.

    - OMS/Network provides direct communications between the optician and the optical lab.

    - The OMS Surface Generator is a computerized machine tool used solely for plastic eyeglass lens manufacture.

    - The OMS Lens Edger uses the data from the OMS Frame Tracer to cut and bevel the lens to fit the eyeglass frames.

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- The GerberScanner® provides image processing capabilities to GSP's signmaking systems.

- The HS 750™ is a high-speed plotter for the signmaking industry. It produces high-quality lettering up to 30" high.

- SuperSprint™, released in 1988, is a high-speed, automated vinyl film cutting system for the signmaking and graphic arts industries.

- In 1985 GSP introduced the S/4E Engraver/Router™ which engraves on a variety of materials and also routs three-dimensional letters and designs.

- The computerized SPRINT 48™ manufactures signs with relief or stencil-out lettering from wood, brass, aluminum, plexiglass, and other materials.

- The Signmaker® IVB and Graphix 4B feature plug-in program module cartridges. The first available module provides an autolayout capability producing balanced, multi-line legends.

  - The Signmaker III, introduced in 1982, is designed for commercial sign shops. The interactive system draws sign patters and cuts prespaced letters and legends from adhesive-backed vinyl.

- Gerber Systems Technology (GST)

  - SABRE-5000™, introduced in 1985, is a family of high-performance workstations and software for mechanical applications. It features the UNIX operating system, advanced solid modeling, high-speed color shading, and an open software architecture for third-party and user-developed programs.

    - In the fourth quarter of 1988, Software Release 8 for the SABRE-5000 was released. Enhancements were made to the wire frame and surface modeling applications, as well as detail drawing, part design, numerical control tool path generation, and multi-axis machining of complex sculpted surfaces.

  - The IDS-80™ (Interactive Design System), introduced in 1980, is a turnkey CAD/CAM graphics system that creates two- and three-dimensional graphic models of mechanical and electromechanical products.

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- The IDS-80 hardware configuration includes Hewlett-Packard 1000 Series minicomputers, intelligent graphics workstations with high resolution color raster displays, and a plotter.

- Applications available on the IDS system include:

  - Geometric modeling
  - Finite element modeling
  - Detail design
  - Printed circuit board layout
  - Facility layout
  - Numerically controlled machine tool data generation

- Gerber offers software used to link two or more IDS-80 systems to a communications network or to connect the IDS-80 to a customer's mainframe computer. These networks permit simultaneous interaction with the design data base by many operators at all stages of the product cycle.

- In 1982 GST introduced the Autograph™ system, a low-cost turnkey CAD/CAM system for small- to medium-sized metalworking, electromechanical, electronics, and mold design companies.

  - The system is based on Hewlett-Packard computers, creates three-dimensional mechanical and electromechanical parts and printed circuit board designs, and automates the preparation of engineering drawings.

  - Optional modules permit generation of control tapes for automatic milling machines, drill presses, and lathes.

  - Autograph can operate as a standalone system or as a remote graphics workstation to IDS-80 through the Shared Resource Manager (SRM-1™), a network software product.

Gerber provides maintenance services to its clients through a worldwide field service force.

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Industry Markets

Gerber Scientific's fiscal 1988 revenue was derived primarily from the following industries: apparel, automotive, aerospace, electronics, metalworking, printing, optical, graphic arts, and signmaking.

Geographic Markets

Approximately 47% of Gerber Scientific's fiscal 1988 revenue was derived from the U.S., 31% from Europe, 15% from the Far East, and 7% from other international sources. A three-year geographic source of revenue summary follows:

GERBER SCIENTIFIC, INC.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/88		4/87		4/86	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$123.3	47%	$119.0	53%	$117.1	61%
Europe	$83.2	31%	$61.8	28%	$38.9	20%
Far East	$38.7	15%	$30.2	14%	$23.0	12%
Other (a)	$18.8	7%	$12.9	5%	$12.8	7%
TOTAL	**$264.0**	**100%**	**$223.9**	**100%**	**$191.8**	**100%**

(a) Includes revenue from Canada, Latin America, and other countries who contributed less than 1% to revenues.

Major U.S. sales offices are located in Atlanta, Chicago, Dallas, Detroit, Hartford, Los Angeles, New York City, and Washington D.C. Additional sales offices are located in numerous metropolitan areas.

Western European subsidiary sales and service subsidiaries are located in Belgium, France, West Germany, Italy, Sweden, and the U.K. Additional sales and service subsidiaries are in Australia, New Zealand, Hong Kong, Japan, and Canada.

Gerber Scientific's products are also sold in other parts of the world by independent sales representatives.

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Computer Hardware and Software

Gerber Scientific has the following equipment installed:

- 2 HP 3000s Series 70, operating under MPE V, at its South Windsor headquarters
- 1 HP 3000 Series 48, operating under MPE V, at Gerber Europe in Belgium
- 1 HP 3000, operating under MPE V, at Gerber Camsco in Texas
- 2 HP 3000s Series 58 and 70 operating under MPE V at GSP

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FINANCIAL UPDATE TO PROFILE DATED OCTOBER 1983*

GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, CT 06074
(203) 644-1551

H. Joseph Gerber, President
Public Corporation, NYSE
Total Employees: 1,800
Total Revenue, Fiscal Year End
4/30/85: $224,158,000

GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM / FISCAL YEAR	4/85	4/84	4/83	4/82	4/81
Revenue	$224,158	$173,593	$117,247	$114,756	$93,105
. Percent increase from previous year	29%	48%	2%	23%	25%
Income before taxes	$ 43,707	$ 25,009	$ 6,880	$ 4,611	$14,864
. Percent increase (decrease) from previous year	75%	264%	49%	(69%)	48%
Net income	$ 25,059	$ 14,677	$ 4,517	$ 3,373	$ 8,524
. Percent increase (decrease) from previous year	71%	225%	34%	(60%)	47%
Earnings per share (a)	$ 1.45	$ 0.95	$ 0.32	$ 0.24	$ 0.42
. Percent increase (decrease) from previous year	53%	197%	33%	(43%)	N/A

(a) Restated to reflect a 3-for-2 stock split to shareholders of record August 27, 1984.

- Recent acquisitions made by Gerber Scientific include the following:
  - On June 14, 1984, Gerber Scientific Instrument Company, a wholly owned subsidiary of Gerber, Acquired the EOCOM Electronic Systems Division (EOCOM) of Hoechst Capital Corporation for approximately $6.5 million.
    - EOCOM designs, develops, manufactures, markets, and services laser-based imaging systems used for printing newspapers,

*Replaces Financial Update of July 1984

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exposing printed circuit board artwork, and direct imaging of printed circuit boards.

. The acquisition was accounted for as a purchase.

- On May 16, 1984, Gerber Garment Technology, Inc., another wholly owned subsidiary of Gerber, acquired certain assets and technology for a computer-controlled material handling system from R.P.N. Systems, Inc. of Bellevue (WA) for approximately $1.4 million.

  . The acquisition was accounted for as a purchase.

  . This acquisition led to the introduction in 1985 of a new product, the GERBERmover, a computer-controlled material handling and requirements planning system for apparel manufacturers.

- Revenue for the three months ending July 31, 1985 was $48.3 million, an 11% decrease from $54.6 million for the same period in 1984. Net income for the period declined 25% from $5.8 million to $4.3 million.

  - Gerber management attributes the declines to a weak capital spending environment created by the strong dollar, weakening of the European and U.S. economies, and a softness in the apparel industry.

SOURCE OF REVENUE

- Gerber Scientific derived 100% of its fiscal 1985 revenue from CAD/CAM turnkey products and maintenance services. A three-year summary of source of revenue follows ($ millions):

FISCAL YEAR / ITEM	4/85		4/84		4/83	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Product sales	$191.6	85%	$146.0	84%	$ 98.4	84%
Service	32.6	15	27.6	16	18.9	16
Total revenue	$224.2	100%	$173.6	100%	$117.3	100%

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- A further breakdown of sales and service revenue by product line follows ($ millions):

FISCAL YEAR / ITEM	4/85		4/84		4/83	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Interactive production, drafting, and photo-plotting systems	$ 71.7	32%	$ 50.4	29%	$ 37.5	32%
Cutting, nesting, and material handling systems	83.0	37	74.7	43	43.4	37
Interactive design and data management systems	40.4	18	20.8	12	21.1	18
Microprocessor-controlled production systems	8.9	4	20.8	12	5.2	4
Other	20.2	9	6.9	4	10.1	9
Total	$224.2	100%	$173.6	100%	$117.3	100%

- Approximately 63% of Gerber Scientific's total fiscal 1985 revenue was derived from the U.S. and 37% was derived from foreign sources.

- New/enhanced product offerings, by operating subsidiary, include the following:

  - Gerber Garment Technology, Inc. (GGT).

    - GERBERmover, a computer-controlled material handling and requirements planning system, was introduced in 1985.

    - The MM-5 is an intermediate-priced grading and marker making system.

    - The GERBERsaver is designed to increase material use by reducing the amount of waste in the process of eliminating flaws discovered in material.

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- The Gerber Mechanical Pattern Cutter eliminates the hand-cutting of patterns in the shoe industry.
- The GM-510 Pattern Grading and Engineering System is a grading system that grades and plots shoe pattern parts.
- The Apex II Grading and Design System is an interactive design system for the shoe industry.
- The GERBERcutter S-95 is the newest addition to Gerber's automated cutting systems.

- Gerber Scientific Instrument Company (GSI).
  - CAMtec is a computer-aided manufacturing system for printed circuit board manufacturers.
  - CIMS 9000 is a computer-integrated manufacturing system that collects, converts, stores, and distributes design and manufacturing data to CAD systems, numerically controlled (N/C) machines, drill machines, and GSI plotting systems.
  - The VDS 2500 video digitizing system picks up and follows each line on a drawing and translates it into computer data for editing at the workstation.
  - GSI has also developed enhancements to its AutoPrep 5000 system for the graphic arts industry, including a stream digitizing and silhouetting capability.
  - The PC 800 Model 4 generates artwork masters, solder masks, production masters, silkscreen masters, component drawings, parts lists, net lists, and bill of material, as well as N/C drill tapes and N/C tapes for automatic component insertion and sequencer machines.
- Gerber Scientific Products, Inc. (GSP).
  - In 1985 GSP introduced the S/4E Engraver/Router which engraves on a variety of materials and also routs three-dimensional letters and designs.
  - The computerized System 48 manufactures signs with relief or stencil-out lettering.
  - The Signmaker IVB and Graphix 4B feature plug-in program module cartridges. The first available module provides an autolayout capability producing balanced, multi-line legends.

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- Gerber Systems Technology, Inc. (GST).

  . SABRE-5000, introduced in 1985, is a family of high performance workstations and software for mechanical and electrical design and for mechanical applications. It features the UNIX operating system, advanced solid modeling, high speed color shading, and an open software architecture for third-party and user-developed programs.

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GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, CT 06074
(203) 644-1551

H. Joseph Gerber, President
Public Corporation, NYSE
Total Employees: 1,650
Total Revenue, Fiscal Year End
4/30/84: $173,593,000

GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	4/84	4/83	4/82	4/81	4/80
Revenue (a)	$ 173,593	$ 117,247	$ 114,756	$ 93,105	$ 74,400
. Percent increase from previous year	48%	2%	23%	25%	N/A
Income before taxes	$ 25,009	$ 6,880	$ 4,611	$ 14,864	$ 10,032
. Percent increase (decrease) from previous year	264%	49%	(69%)	48%	42%
Net income	$ 14,677	$ 4,517	$ 3,373	$ 8,524	$ 5,781
. Percent increase (decrease) from previous year	225%	34%	(60%)	47%	49%
Earnings per share	$ 1.42	$ 0.48	$ 0.36	$ 0.90	$ 0.62
. Percent increase (decrease) from previous year	196%	33%	(60%)	45%	48%

(a) Restated to reflect a change in accounting procedures.

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SOURCE OF REVENUE

- Gerber Scientific derived 100% of its fiscal 1984 revenue from CAD/CAM turnkey products and maintenance services. A three-year summary of source of revenue follows ($ millions):

FISCAL YEAR / ITEM	4/84		4/83		4/82	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Product sales	$146.0	84%	$ 98.4	84%	$100.7	88%
Service	27.6	16	18.9	16	14.0	12
Total revenue	$173.6	100%	$117.3	100%	$114.7	100%

- A further breakdown of sales and service revenue by product line follows ($ millions):

FISCAL YEAR / ITEM	4/84		4/83		4/82	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Interactive graphic production, drafting, and photoplotting systems	$ 50.4	29%	$ 37.5	32%	$ 42.2	37%
Cutting and nesting systems	74.7	43	43.4	37	34.8	30
Interactive graphic design and data management systems	20.8	12	21.1	18	18.4	16
Microprocessor-controlled production systems	20.8	12	5.2	4	6.5	6
Other	6.9	4	10.1	9	12.8	11
Total	$173.6	100%	$117.3	100%	$114.7	100%

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GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, CT 06074
(203) 644-1551

H. Joseph Gerber, President
Public Corporation, NYSE
Total Employees: 1,500
Total Revenue, Fiscal Year End 4/30/83: $118,282,000

THE COMPANY

- Gerber Scientific, Inc., founded in 1948, develops computer-aided design/computer-aided manufacturing (CAD/CAM) turnkey systems for computer-controlled drafting and photoplotting, low-cost interactive design, computerized nesting and material cutting, and interactive graphics production.

- In January 1983 Gerber Garment Technology, Inc., a wholly owned subsidiary of Gerber Scientific, acquired the stock of Camsco, Inc. of Dallas and its subsidiary, Camsco Europe GmbH of Munich, for $2.3 million.

  - Camsco, renamed Gerber Camsco, Inc., develops, manufactures, markets, and services computerized labor and material savings and factory automation systems, and now operates as a wholly owned subsidiary of Gerber Garment Technology.

  - Camsco had approximately $23 million in annual revenue at the time of acquisition.

    . Gerber Camsco contributed approximately $6 million in revenue for the four-month period it was included in Gerber's fiscal 1983 consolidated results.

    . At the date of the acquisition, Camsco had net operating loss carryforwards of approximately $9.3 million, which will be used to offset future taxable income of Gerber Camsco.

- Fiscal 1983 revenue reached $118.3 million, a 1% increase over 1982 revenue of $117.4 million. Net income rose 34% from $3.4 million in 1982 to $4.5 million in 1983. A five-year financial summary follows:

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GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	4/83	4/82 (a)	4/81 (a)(c)	4/80	4/79
Revenue	$118,282	$117,370	$99,238	$76,487	$46,488
. Percent increase from previous year	1%	18%	30%	65%	67%
Income before taxes	$ 6,880	$ 4,611	$14,864	$10,032	$ 7,073
. Percent increase (decrease) from previous year	49%	(69%)	48%	42%	123%
Net income	$ 4,517	$ 3,373	$ 8,524	$ 5,781	$ 3,877
. Percent increase (decrease) from previous year	34%	(60%)	47%	49%	165%
Earnings per share (b)	$ 0.48	$ 0.36	$ 0.90	$ 0.62	$ 0.42
. Percent increase (decrease) from previous year	33%	(60%)	45%	48%	117%

(a) Restated to reflect the adoption in 1983 of Statement of Financial Accounting Standards No. 52 regarding foreign currency transactions and financial statements.
(b) Restated to reflect a three-for-two stock split to shareholders on record as of July 21, 1983.
(c) In 1981 the company realized a capital gain, net of tax, of $2,575,000, or $0.27 per share, from the partial sale of Boston Digital Corporation stock.

- Gerber Scientific management attributes slowed revenue growth in fiscal 1983 to decreased demand for capital equipment during the first three quarters, resulting from general economic weakness and the persistence of high interest rates.

  - The company did experience significant increases in the demand for its products during the fourth quarter, resulting in net income of $1.8 million for the period, a 121% increase over $802,000 for the same period in fiscal 1982.

  - The impact of the economic recession most affected sales of CAD/CAM drafting, photoplotting, and cutting sytems. This decrease was offset by improved sales of the company's pattern-grading and marker-making systems, sales of the new Autograph CAD/CAM system, and higher maintenance revenue.

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- Cost of sales and service for fiscal 1983 was $60.7 million (51% of revenue) as compared to $63.7 million for 1982 (54% of revenue) and $45.6 million for 1981 (46% of revenue).

  - Gerber Scientific management attributes declines in 1982 net income to strong competitive pricing, particularly in the interactive graphics and pattern-grading and marker-making systems.

    . Gerber Systems Technology, Inc., an 80% owned subsidiary, reported net losses of $1.8 million in 1981 and $3.1 million in 1982. For fiscal 1983 the subsidiary had net earnings of $247,000.

- Research and development costs for fiscal 1983 were $8.8 million as compared to $8.7 million in 1982 and $6.7 million in 1981, amounting to 7% of revenue in each year.

- Revenue for the three months ending July 31, 1983, reached $35.4 million, a 33% increase over $26.5 million for the same period in 1982. Net income for the period increased 167% from $907,000 in 1982 to $2.4 million in 1983.

- Gerber Scientific conducts its business through five principal operating subsidiaries as follows:

  - The Gerber Scientific Instrument Company (GSI) provides turnkey drafting and photoplotting and low-cost interactive graphic production systems.

  - Gerber Garment Technology, Inc. (GGT) and its wholly owned subsidiary, Gerber Camsco, Inc., provide CAD/CAM design, grading, nesting, and limp-fabric and composite-material-cutting systems to the apparel, furniture, aerospace, automotive, and shoe industries.

  - Gerber Systems Technology, Inc. (GST) provides turnkey interactive graphic CAD/CAM systems for mechanical and electromechanical applications.

    . In April 1981 GST sold 640,000 shares of its common stock to the public at $12.75 per share. After the sale, Gerber Scientific's ownership was reduced from 100% to 80%.

  - Gerber Scientific Products, Inc. (GSP) is responsible for expanding the company's product and customer base by developing low-cost, microprocessor-based electromechanical CAD/CAM systems for new markets such as the small engineering shop and the commercial signmaker.

- Gerber Scientific Leasing, Inc. (GSL) is an unconsolidated subsidiary that provides leasing arrangements to clients of Gerber Scientific. GSL operations, which are accounted for under the equity method, have not been significant to date.

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- Beta Engineering and Development, Ltd. of Beer Sheva, Israel, is approximately 35% owned by Gerber Scientific. Beta produces computer-aided sewing systems and security devices.

  - In June 1983 Beta issued and sold 909,112 shares of its common stock to an Israeli company. The sale reduced Gerber's ownership interest from 58% to 35%. As a result, Gerber will account for its remaining investment in Beta under the equity method.

- Boston Digital Corporation of Hopkinton (MA) is a 21% owned affiliate of Gerber. Boston Digital produces turnkey numerical control machining systems that perform precision metal-cutting operations. Gerber's interest is accounted for under the equity method.

- Gerber Scientific Exporting, Inc. is a Domestic International Sales Corporation (DISC) handling all of Gerber Scientific's export sales.

- In Europe most of the company's products are marketed and maintained by wholly owned subsidiaries in Belgium, England, France, Sweden, Italy, and West Germany.

- In June 1983 Gerber Scientific organized Gerber Venture Capital Corporation, a wholly owned subsidiary formed as a holding company to manage current and future equity investment and to provide seed money for start-up entrepreneurial ventures.

- As of April 30, 1983, Gerber Scientific had 1,500 employees. The current number of employees remains at 1,500.

- Major competitors to Gerber in the turnkey interactive graphics field include Applicon, Intergraph, Calma, McDonnell Douglas Automation, Computervision, and IBM.

KEY PRODUCTS AND SERVICES

- Gerber Scientific derived 99% of its fiscal 1983 revenue from CAD/CAM turnkey products and maintenance services and 1% from miscellaneous items including foreign currency gains, royalties, and equity income of less than 50%-owned affiliates . A three-year summary of source of revenue follows ($ millions):

FISCAL YEAR / ITEM	4/83 Revenue	4/83 Percent of Total	4/82 Revenue	4/82 Percent of Total	4/81 Revenue	4/81 Percent of Total
Product sales	$ 98.4	83%	$ 100.7	86%	$82.2	83%
Service	18.9	16	14.0	12	10.9	11
Other income	1.0	1	2.6	2	6.1	6
Total revenue	$ 118.3	100%	$ 117.3	100%	$99.2	100%

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- A further breakdown of sales and service revenue by product line follows ($ millions):

FISCAL YEAR / ITEM	4/83		4/82		4/81	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
GSI interactive graphic production, drafting, and photoplotting systems	$ 37.5	32%	$ 42.2	37%	$ 33.3	36%
GGT cutting and nesting systems	43.4	37	34.8	30	28.9	31
GST interactive graphic design and data management systems	21.1	18	18.4	16	15.7	17
GSP microprocessor-controlled production systems	5.2	4	6.5	6	5.4	6
Other products (Beta and European subsidiaries)	10.1	9	12.8	11	9.8	10
Total	$ 117.3	100%	$ 114.7	100%	$ 93.1	100%

- GSI's interactive turnkey graphic production, drafting, and photoplotting systems automate the production of engineering drawings and verify design data for the automotive, aerospace, shipbuilding, mapmaking, apparel, and electronics industries. GSI systems sell in the $50,000 to $500,000 range.

  - The standard configuration of a drafting system consists of a computer-based control unit and a plotter.

  - In 1982 GSI introduced the PC-800 Model 3, an interactive turnkey production system designed for manufacturers of printed circuit boards. The system features a color graphics option to differentiate multilayers of design with seven different colors on a large raster scan display.

    . This system incorporates GSI digitizers, plotters, photoplotters, and a Hewlett-Packard 1000 Model 2113E or 2114E minicomputer.

  - AUTOPREP 5000, introduced in 1981, is a turnkey CAD system for automating film mask preparation in the graphic arts industry.

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  - . This system incorporates a turnkey CAD workstation, a photo drum plotter, and a Hewlett-Packard minicomputer.

- The Gerber Model 4135 Laser-Directed Photoplotter, introduced in late 1982, is a high-precision photoplotter for the production of high-density printed circuit boards.

- The Model 41 Printed Circuit Board Photoplotter produces printed circuit board artwork masters and associated manufacturing aids for single, two-sided, and multilayer boards.

- GSI produces a range of flatbed and drum plotters of varying sizes, speeds, and accuracy.

• GGT's turnkey GERBERcutter, CAD/CAM cutting, and nesting systems are marketed to the apparel, aerospace, automotive, furniture, shoe, and luggage industries and are priced from $25,000.

  - GERBERcutter systems automatically cut precise parts out of layers of flexible material such as textiles, leathers, vinyls, plastics, fiberglass, and advanced composite material. The systems use Hewlett-Packard 1000 Model 2113E minicomputers.

    - . The GERBERcutter S-91, introduced in 1978, uses the Knife Intelligence system to minimize inaccuracies caused by knife blade deflections, allowing precision cutting of up to three inches of compressed layers of material.

    - . In 1982 GGT introduced the GERBERcutter S-91 Traveling Conveyor, a computer-aided cutting system with a conveyorized cutting surface that can be moved from one spreading table to another.

  - In 1982 GGT introduced CP-600, a Hewlett-Packard-based data management system that automatically matches marker combinations against fabric utilization and cutting costs to achieve the most effective and lowest cost apparel production order.

  - GGT's Gerber Camsco, Inc. systems include the following:

    - . The AM-5, introduced in 1982, a low-cost turnkey nesting, pattern grading, and marker-making system designed for use by apparel manufacturing firms of all sizes.

      - The system uses a Hewlett-Packard 1000 Model A-600 minicomputer, a digitizer, a plotter pattern cutter, and a graphics workstation.

    - . The GRADAMATIC-5, introduced in 1983, is a high-performance, low-cost grading and pattern-cutting system for smaller apparel manufacturers.

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- It includes a Hewlett-Packard microcomputer, a digitizer, cutter plotter, and optional minigraphics display.

- The system is upgradable to a full-design and marker-making system.

. The MARKAMATIC-5000 is a pattern-making and nesting system that has been further developed into the COMMAND system for the aerospace and metalworking industries. These systems include a Hewlett-Packard 1000 Model A-600 minicomputer.

- The COMMAND system has a built-in accounting and reporting system; it monitors raw stock and inventory levels and includes a cutting management system for control of cutting operations.

. The APEX system provides the footwear industry with a style development capability. It is based on a Hewlett-Packard 1000 Model A-600 minicomputer.

- Features include interactive pattern design, shell grading for upper and lower components, three-dimensional entry for style and mold generation, cost analysis, multicolor plotting, and pattern cutting.

• GST provides CAD/CAM systems for mechanical and electromechanical applications that range in price from $83,000 to over $200,000.

- The IDS-80 (Interactive Design System), introduced in 1980, is a turnkey CAD/CAM graphics system that creates two- and three-dimensional graphic models of mechanical and electromechanical products.

. The IDS-80 hardware configuration includes Hewlett-Packard 1000 Series minicomputers, intelligent graphics workstations with high resolution color raster displays, and a plotter.

. Applications available on the IDS system include:

- Geometric modeling.
- Finite element modeling.
- Detail design.
- Printed circuit board layout.
- Facility layout.
- Numerically controlled machine tool data generation.

. Gerber offers software used to link two or more IDS-80 systems to a communications network or to connect the IDS-80 to a customer's mainframe computer. These networks permit simultaneous interaction with the design data base by many operators at all stages of the product cycle.

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- In 1982 GST introduced the Autograph system, a low-cost turnkey CAD/CAM system for small- to medium-sized metalworking, electromechanical, electronics, and mold design companies.

  . The system is based on Hewlett-Packard computers, creates three-dimensional mechanical and electromechanical parts and printed circuit board designs, and automates the preparation of engineering drawings.

  . Optional modules permit generation of control tapes for automatic milling machines, drill presses, and lathes.

  . Autograph can operate as a standalone system or as a remote graphics workstation to IDS-80 through the Shared Resource Manager (SRM-1), a network software product.

- GSP has developed the following application-specific, microprocessor-based CAD/CAM systems:

  - Graphixs 3, introduced in 1983, generates type and other graphic elements for the graphic arts and advertising industries.

  - Signmaker III, introduced in 1982, is designed for commercial sign shops. The interactive system draws sign patterns and cuts prespaced letters and legends from adhesive-backed vinyl.

- Gerber provides maintenance services to its clients through a worldwide field service force.

INDUSTRY MARKETS

- Gerber Scientific's fiscal 1983 revenue comes from the aerospace, apparel, automotive, electronics, construction, printing, engraving, luggage, plastic mold, tool and die, sheetmetal, footwear, and signmaking industries.

GEOGRAPHIC MARKETS

- Fifty-three percent of Gerber Scientific's fiscal 1983 revenue was derived from the U.S. The remaining 47% was derived from foreign sources, primarily Europe, the Far East, South Africa, and Australia.

- Major U.S. sales offices are located in Atlanta, Chicago, Dallas, Detroit, Hartford, Los Angeles, New York City, and Washington, D.C. Additional sales offices are located in numerous metropolitan areas.

- Western European subsidiary sales and service headquarters are located in Belgium, France, West Germany, Italy, Sweden, and the United Kingdom.

- Beta Engineering and Development, Ltd. is the company's sales and service representative in Israel.

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- Gerber Scientific's products are also sold worldwide through independent sales representatives in Japan, Canada, Asia, Australia, New Zealand, South Africa, Mexico, Brazil, and the northwestern U.S.

COMPUTER HARDWARE AND SOFTWARE

- Gerber Scientific has the following equipment installed:
  - 2 HP 3000s, operating under MPE III, at its South Windsor headquarters.
  - 1 HP 3000, operating under MPE III, at Gerber Europe in Belgium.
  - 1 HP 3000, operating under MPE III, at Gerber Camsco in Texas.

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COMPANY HIGHLIGHT

GERBER SCIENTIFIC, INC.
83 Gerber Road West
South Windsor, Ct. 06074
(203) 644-1551

H. Joseph Gerber, President
Public Corporation, NYSE
Total Employees: 1300
Total Revenues Fiscal Year End 4/30/80: $74,400,000

THE COMPANY

- Gerber Scientific, Inc. was founded in 1948 in Connecticut as The Gerber Scientific Instrument Company. The company changed its name in 1978 to more accurately reflect its current business. Gerber Scientific develops turnkey products in computer-controlled drafting and photoplotting, low-cost interactive design, computerized marker making and material cutting, and high-technology interactive graphics systems.

- Revenues increased 65%, from $45 million in FY 1979 to $74.4 million in FY 1980. Net income increased 51% to $5.9 million. A five-year financial summary follows:

GERBER SCIENTIFIC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ THOUSANDS, EXEPT PER SHARE DATA)

ITEM \ FISCAL YEAR	1980	1979	1978	1977	1976
Revenues	$74,400	$45,049	$27,232	$20,778	$14,480
. Percent increase from previous year	65%	65%	31%	43%	--
Income before taxes and extraordinary item	$ 9,854	$ 7,000	$ 3,168	$ 1,757	$ (128)
. Percent increase from previous year	41%	121%	80%	N/A	--
Net income	$ 5,854	$ 3,877	$ 1,707	$ 1,024	$ 16
. Percent increase from previous year	51%	127%	67%	6,300%	--
Earnings per share (A)	$ 1.89	$ 1.26	$ 0.57	$ 0.34	$ .01
. Percent increase from previous year	50%	121%	73%	3,400%	--

(A) Net earnings and earnings per share have been restated to give effect to a two-for-one stock split in December 1979 and a three-for-two stock split in November 1978.

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- Net earnings of only $16,000 in FY 1976 were the result of low sales levels due to poor economic conditions in industries served by the company.

- Increases in revenue and net income since FY 1977 reflect the worldwide growth in demand for the company's products, which increase productivity by shortening development and manufacturing cycles, improve quality and reduce costs.

- The company spent approximately 7% of its total revenues on research and development in both 1979 and 1980.

- At the annual stockholders' meeting held September 29, 1980, another two-for-one stock split, payable November 4, 1980, was announced. The company also announced that its stock will be traded on the New York Stock Exchange beginning October 3, 1980. Gerber was formerly listed on the American Stock Exchange.

- Revenues for the first quarter of FY 1980, ended July 31, 1980, rose 72% to $22.8 million from $13.2 million for the same period in FY 1979. Net income increased 384% to $3.6 million from $0.95 million. Earnings per share were $1.16, compared with $0.30 in FY 1979.

  - Gerber reported a capital gain of $4.3 million ($2.6 million net of tax), or $0.82 per share, as a result of selling a percentage of its holdings in Boston Digital Corporation.

- Gerber Scientific, Inc. was formed as the parent firm in November 1978 to provide corporate management and financial control for its five wholly owned U.S. subsidiaries. Each subsidiary has autonomous management and a separate board of directors.

  - Gerber Garment Technology, Inc. (GGT) markets the AM-1 pattern grading and marker making system and GERBERcutter fabric cutting systems to the apparel, automotive and aerospace industries. GGT contributed approximately $28.7 million to FY 1980 revenues.

  - The Gerber Scientific Instrument Company (GSI) offers turnkey drafting, photoplotting and low-cost interactive graphics systems. An estimated $26 million of FY 1980 revenues were derived from GSI.

  - Gerber Systems Technology, Inc. (GST), formerly Gerber's System Division, became a subsidiary in May 1979. GST markets turnkey, multi-application interactive graphics systems for computer-aided design and computer-aided manufacturing (CAD/CAM). GST's FY 1980 revenues were $13.2 million.

  - Gerber Scientific Products, Inc. (GSP) was formed in January 1980 and began operations on May 1, 1980. GSP is responsible for expanding the company's product base by developing custom turnkey products not presently available.

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- Gerber Scientific Leasing, Inc. (GSL) was formed on August 30, 1978, to provide customized leasing arrangements to clients of all Gerber companies. GSL operations are accounted for under the equity method and are not included in the company's consolidated financial statements.

- In Europe, most of the company's products are marketed and served by three wholly owned subsidiaries:

  - Gerber Scientific Europe S.A., located in Belgium.
  - Gerber Scientific U.K., Ltd.
  - Gerber Scientific Instruments GmbH, in West Germany.

- Beta Engineering and Development, Ltd., located in Beer-Sheva, Israel, is approximately 58% owned by Gerber. Beta produces medical instrumentation and manufactures the Encimat line of computer-aided sewing systems.

- Boston Digital Corporation of Holliston (MA) is a 21.2%-owned affiliate of Gerber. Boston Digital produces turnkey numerical control machining systems that perform precision metal-cutting operations.

  - In July 1980, Gerber sold 370,000 shares of Boston Digital stock at $14.50 per share in connection with a public offering of shares by BDC. The offering and sale reduced Gerber's equity investment in Boston Digital from 40% to 21.2%.

- Gerber Scientific Exporting, Inc. is a Domestic International Sales Corporation (DISC) handling all of Gerber's export sales.

- On October 17, 1980, GGT announced its aquisition of certain assets and rights relating to the business of Hughes Aircraft Company's AM-1 pattern grading and marker-making system for $2-3 million.

  - The AM-1 system, a product of the Hughes Industrial Product Division in Los Angeles, produced an estimated $15-20 million in revenues in 1979.

- Major competitors of GST include Applicon, Inc., Autotrol Technology Corporation, CALMA Company and Computervision Corporation. Gerber believes it is the major supplier of computer-controlled material-cutting systems and some types of drafting systems.

KEY PRODUCTS AND SERVICES

- Gerber Scientific derives 100% of its revenue from turnkey drafting, photoplotting, cutting, interactive graphics (IDS and DMS) and customized systems. A five-year summary of the contribution to total revenue from each turnkey sector follows:

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ITEM \ FISCAL YEAR	4/80	4/79	4/78	4/77	4/76
GSI drafting and photo-plotting systems	36%	42%	54%	59%	55%
GGT cutting systems	41	32	25	30	22
GST IDS and DMS systems	19	23	17	7	18
Other	4	3	4	4	5
Total	100%	100%	100%	100%	100%

- GST's IDS (Interactive Design System) line of CAD/CAM systems creates two- and three-dimensional graphic models of mechanical and electromechanical products, primarily for use in the automotive and aerospace industries.
  - The systems may also be used in architectural design, mapmaking, printed circuit board design, electrical schematics, tooling design and plant layout.
  - Operator training time is reduced through the use of visually displayed instructions.
  - A DMS system (Data Management System) can link IDS systems to form distributed networks and larger, mainframe-controlled networks.
  - IDS systems are priced in the $195,000 to $450,000 range.
    - The IDS-80, introduced in April 1980, uses an HP 2117F minicomputer and RTE-IV operating system. Display data and multiple picture transformation functions are controlled within terminal workstations. Applications available on the IDS-80 include:
      - Geometric Modeling.
      - Automatic Drafting or Design Detailing.
      - Finite Element Modeling.
      - Numerical Control.
      - Printed Circuit Board Design and Schematic Drafting.
    - The IDS-80 evolved from the IDS-3 system graphics technology, introduced by GST in 1973.
- GGT's turnkey GERBERcutter and AM-1 systems are marketed to the apparel, automotive, aerospace, furniture, sailmaking, shoe and luggage industries.
  - GERBERcutter systems, developed in 1969, automatically cut cloth, vinyl and composites such as graphites and epoxies. Approximately 200

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cutters have been installed in 100 companies internationally. The systems use Hewlett-Packard minicomputers.

  - The GERBERcutter System 91, introduced in fiscal 1978, uses the Knife Intelligence system. By minimizing inaccuracies caused by knife blade deflection, the system allows precision cutting of up to three inches of vacuum-compressed layers of fabric.

  - Prices for the system are between $325,000 and $550,000.

- The AM-1 pattern-grading and marker-making system is a mini-based CAD system that sizes and arranges pattern pieces in order to minimize material usage in cutting. The system generates full-size paper plots for verification as well as N/C disks or tapes for driving the GERBERcutter.

  - The AM-1 system, recently acquired from Hughes Aircraft Corporation, sells for between $200,000 and $500,000. Nearly 200 systems have been sold worldwide.

- GSI's turnkey drafting and photoplotting systems automate the production of engineering drawings and verify design data for the automotive, aerospace, shipbuilding, apparel, electronics and mapmaking industries. GSI systems have a dominant position in the high-precision segment of the market and sell in the $50,000 to $500,000 range.

  - The Gerber Model 1434 laser-controlled photoplotter, introduced in 1979, is used in the production of television screen masters and microelectronic packaging.

  - The 4477P photoplotter, also introduced in 1979, provides cartographers with a single system for producing precision color maps.

  - The PC-800, introduced in FY 1980, is an interactive turnkey production system designed for manufacturers of printed circuit (PC) boards. This specialized CAD/CAM system incorporates GSI digitizers, plotters and photoplotters and a Hewlett-Packard minicomputer. The average PC-800 system sells for $90,000, compared to the $200,000 to $300,000 systems now used by large PC board manufacturers.

  - The new Gerber Formatter is a turnkey production system created specifically for the printing industry. The system prepares film masks for page layouts used in magazines, books and other printed material in one-tenth the time it takes by hand.

- On June 25, 1980, GSP reported that it had received a $7.5 million order for a newly developed line of portable, microprocessor-controlled, automated drawing machines.

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INDUSTRY MARKETS

- The majority of Gerber revenues are drawn from the aerospace, apparel, automotive, construction, electronics and mapmaking industries.

GEOGRAPHIC MARKETS

- Approximately 58% of total FY 1980 revenues were derived domestically. Export sales were 42% of revenues.
  - Export sales to Western Europe represented 26% of total FY 1980 revenues.
- Domestic sales offices include Hartford (CT), Washington (DC), Chicago, Dallas, Detroit and Los Angeles.
  - International sales headquarters are located in Belgium, Germany, the United Kingdom and Israel.
  - Independent sales representatives are located in Japan, Canada, Asia, Australia, New Zealand, South Africa, the northwest United States and other parts of the world.

COMPUTER HARDWARE

- Gerber Scientific's data center has an HP 3000 mainframe, running under MPE III for internal use and development.

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INPUT®

Vendor Profile

A Publication from INPUT's Vendor Analysis Program

June 1997

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Chairman:	J.C. Bakker
President & CEO:	A.H.J. Risseeuw
Status:	Public
Employees:	5,937 (12/96)
Revenue:	$1,278,000,000
Fiscal Year End:	12/31/96

Key Points

- Getronics is a major European IT services vendor, headquartered in the Netherlands, with a major focus on desktop automation, network services, and telematics.
- In 1996, Getronics brought RAET, a Dutch leading provider of HR and automation solutions for the professional, health, and government markets.
- One of the company's strategic objectives is to increase its international business.

Company Description

Getronics Service started under the name of Geveke Electronica Service in 1968 providing after-sales service of computer and peripheral products, sold by its parent Geveke Electronica. Geveke entered the third-party maintenance market in 1978 and soon became the market leader in Benelux.

In 1983, the service department split off from its parent and Getronics was formed. The company has been listed on the Amsterdam Stock Exchange since 1985 and on the SEAQ International in London since 1993. The company's shares are spread mostly over a large number of institutional investors in the Netherlands, the U.S., and the U.K.

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Getronics has widened its scope beyond the TPM market and declared its mission to provide "integrated IT solutions through systems integration, services, and information systems and network management."

The company has further expanded its activities outside Benelux and is now present through subsidiaries in:

- The Netherlands
- Belgium
- Luxembourg
- Norway
- Denmark
- U.K.
- Germany
- Switzerland
- Spain
- Italy
- U.S.

Many of the company's subsidiaries operate under different names, such as

- Getronics Service (Benelux)
- Gematica (Spain)
- Getech (U.K.)
- Intercai (U.K., U.S., Spain, Germany, Italy)
- Cinet Service (Scandinavia)

Operations and Structure

Getronics is divided into a number of complementary business units, each specializing in a specific area of information and communication technology. The company has grouped its specialized business units around eight Centers of Competence:

- IT and Telematics Consultancy
- Software and Continuity Services
- Information Systems Management
- Networks and Network Services
- Telematics Installation
- Telecommunications
- Desktop Automation
- Industrial Automation

Employees

During 1996, Getronics had an average of 5,610 employees worldwide, segmented as follows:

Netherlands	4,563	(81%)
Other EU Countries	557	(10%)
Rest of the world	490	(9%)
	5,610	100%

At the end of 1996, Getronics had 5,937 employees worldwide.

Exhibit 1 shows the company's average staff number by major activity.

Exhibit 1

Getronics
1996 Employees by Service Activity

Service Area	Number of Employees	Percent of Total
Software & Consultancy	1,739	31%
Computer & Network Services	2,468	44%
ICT Systems	1,403	25%
Average Staff Number	5,610	100%

Source: Getronics

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Company Strategy

Getronics' strategic directions are contained in the following six major goals:

- Continue internal growth above market average
- Aim to occupy a position in the top three in all its product/market combinations
- Provide a flexible cost structure
- Increase added value by emphasizing the provision of high-quality services and the development of vertical specialization by sector or industry
- Focus on external growth and alliances to support the company's growth strategy
- Increase internationalization from a solid home base

Acquisitions/Divestitures

Getronics has grown strongly over the past five years, fueled by acquisitions. As mentioned, this remains a strategic objective for the company. Getronics applies the following criteria for evaluation of potential acquisition targets:

- Will it be a positive contribution to the company's value by providing a complementary portfolio of products and services?
- Will it contribute to further internationalization?
- Is it manageable to ensure good progress after acquisition?
- Will there be diluting effect on earnings per share?

Acquisitions

Getronics' major recent acquisition is RAET NV. In December 1996, Getronics increased its stake in the Dutch professional services vendor from 50% to 100%. The company had acquired the 50% stake in late 1995; the remaining 50% was held by the state-owned Roccade Informatica Groep. Getronics bought the remaining part of RAET after the Dutch government obstructed plans for a merger between Getronics and Roccade. No details of acquisition terms were disclosed.

The acquisition of RAET has increased Getronics' capabilities in personnel systems as well as broader IT services markets. RAET is a leading provider of EDP solutions for the professional, health, and government markets, and has a strong international presence as an IT solutions provider to large corporations.

Financials

Getronics' 1996 revenue reached Dfl 2,211 million ($1,278 million), a 30% increase over 1995 revenue of Dfl 1,703 million. Net income rose 35%, from Dfl 98 million ($56 million) in 1995 to Dfl 132 million ($76 million) in 1996. A five-year financial summary is shown in Exhibit 2.

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Exhibit 2

Getronics
Five-Year Worldwide Financial Summary

Item	Fiscal Year				
	1996	1995	1994	1993	1992
Revenue ($ Millions)	$1,278	$984	$815	$753	$593
Revenue (Dfl Millions)	2,211	1,703	1,410	1,302	1,026
• Percent change from previous year	30%	21%	8%	27%	24%
Income before taxes ($ Millions)	$116	$91	$72	$58	$52
• Percent change from previous year	27%	27%	24%	11%	22%
Net income ($ Millions)	$76	$56	$46	$38	$35
Net income (Dfl Millions)	132	98	80	66	61
• Percent change from previous year	35%	22%	22%	8%	14%
Revenue per employee ($ Millions)	$0.227	$0.223	$0.213	$0.198	$0.188
Revenue per employee (Dfl Millions)	0.394	0.388	0.368	0.342	0.325
Earnings per share (Dfl)	1.52	1.14	0.95	0.79	0.75
• Percent change from previous year	33%	20%	20%	5%	N/A

Exchange rate used: Dfl 1.73 to 1 U.S.$ *Source: Getronics*

INPUT estimates that the acquisition of RAET contributed approximately $240 million to Getronics' revenue for 1996.

INPUT estimates that Getronics' worldwide 1996 revenue was derived approximately as shown in Exhibit 3.

Exhibit 3

Getronics
Revenue by Service Mode, 1996

Service Mode	Revenue in $ Millions	Percent of Total
Customer Services	320	25%
SI & Turnkey Systems	192	15%
Network Services	190	15%
Professional Services	155	12%
Software Products	115	9%
Processing Services	64	5%
Outsourcing	62	5%
Other	180	14%
Total Software & Services	$1,278	100%

Source: INPUT Estimates

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Market Financials

Approximately 27% of Getronics' 1996 revenue was derived from the manufacturing industry, 25% from the government and non-profit organizations, 23% from trade, transport, media and telecom, and 25% from the financial and business services segment.

Exhibit 4 shows INPUT's estimates of U.S. and European revenue by industry market in 1996.

Exhibit 4

Getronics
1996 U.S. and European Revenue by Industry Market

Industry Market	U.S. Percent of Total	Europe Percent of Total
Financial Services	12%	24%
Manufacturing	30%	26%
Communications	15%	10%
Government	5%	27%
Transport & Travel	20%	8%
Other	18%	5%
Total	100%	100%

Source: INPUT estimates

Geographic Markets

In 1996, Getronics generated approximately 74% or $944 million of its worldwide revenue in its domestic market. INPUT estimates that Getronics had U.S. revenue of around $115 million.

Exhibit 5 shows an estimate of Getronics' European revenue by country in 1996.

Exhibit 5

Getronics
European Revenue by Country, 1996

Country	Revenue ($ Millions)	Percent of Total
The Netherlands	925	80%
Belgium/Luxembourg	95	8%
Germany	60	5%
Rest of Europe	80	7%
Total European Revenue	$1,160	100%

Source: INPUT estimates

Key Products and Services

Getronics' main offerings are related to the desktop automation, networking, client/server and communications areas. Networking services cover local- and wide-area networks, including PABX.

The company's mission is to minimize the cost of ownership for its customers and guarantee the maximum availability of their desktop and network systems.

Integrated Services

Under this term, which is key to Getronics' mission, the company groups together several of its services offerings. Examples of the services offered are:

- Procurement and logistics support
- Total network and installation management
- Network audits and tuning
- Change management
- Service level management
- Help desk services
- PC application services
- Facility management

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Software and Network Support
Getronics offers software support for common operating systems and application software, including network software, such as Banyan Vines, IBM LanServer, MS Advanced NT Server, and Novell Netware.

In addition, file server recovery support, help desk services, and antivirus services are available.

The company supports networking hardware from, among others, 3Com, Cisco, Newbridge, Synoptics, and UB Networks.

Professional Services
Getronics will provide a wide range of associated professional services to support its mission and services strategy. These include:

- Consultancy services
- Outsourcing and facilities management
- Refurbishment services
- Training

Other Services
Among its services, Getronics is still active in its traditional market of hardware maintenance, where it covers almost all makes of PCs, peripherals and communication equipment. The company further supports a range of minicomputers and UNIX systems, including:

- Acer-Altos Unix Systems
- Digital Alpha products
- HP 9000 series
- IBM System 3X, AS/400, and RS/600 ranges
- NCR Tower range
- Sun Microsystems products

Further, Getronics offers disaster recovery and fourth-party repair services.

RAET
With the acquisition of RAET, Getronics has added the following areas to its capabilities, with automation solutions and services focused on:

- Payroll and HR systems
- Financial and logistics systems
- General trade, industry, and business services systems
- Government and public utility systems
- Health care and welfare systems
- Office systems

Competence Centers
The following provides an overview of Getronics' offerings and the subsidiaries providing them, structured around the company's eight competence centers.

IT and Telematics Consultancy

Provided by Intercai and Synergie Consultancy, offerings include:

- Data processing and information planning
- Audits
- Automation and telematics
- Document information systems
- Interim and project management
- Consultancy

Telematics Installation

Provided by Electric Engineering and Getronics Installation Services, these services cover aspects of telematics cabling and retail systems engineering.

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Software and Continuity Services

Provided by Getronics Software, RAET IT Services, RAET Personele Systemen, and Computer Uitwijk Centrum, services include:

- Information analysis
- Development tools
- Standard software applications
- Development, implementation, and maintenance
- Design and integration of applications and systems
- Disaster recovery services
- Outsourcing of data processing

Telecommunications

Provided by Getronics Telecom, Vanandel, and Koning en Hartman Telecommunicatie, offerings include:

- Systems integration and related services for telecommunications and telematics
- Call center, dealing, and control room automation

Networks and Networks Services

Provided by Databrain, Getronics Networks, Getronics Network Services, Getronics Transaction & Card Systems, and VAR Networks, offerings include:

- Design, implementation, and maintenance of network infrastructures
- Network management systems
- Outsourced network management services
- Development and management of electronic payment and chip card systems and related services
- Integration of networking systems, including Internet/intranet technology

Information Systems Management

Services are provided by Cinet Service, Bedrijfs Telecommunicatie Services, Gematica, Getronics Service, Getronics Manufacturer Services, Koning en Hartman Services, and RAET Personele Systemen. Capabilities include:

- Disaster recovery services
- Systems and network management
- IT migration projects
- Logistics services
- Procurement, recycling, and refurbishment

Desktop Automation

In this area, services are provided by Cinet AS, Diode Informatica, Getech Ltd, Getronics Iberia, Geveke Electronics Belgie, and RAET Systems & Services. Areas covered by this competence center are based on PCs and workstations. Services include:

- Client/server solutions
- Workflow and groupware applications
- Operational management
- Training

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Industrial Automation

Industrial automation is provided by Getronics Iberia, Geveke Electronics IE, Klaasing Electronics, Koning en Hartman IE. The company's capabilities in this area include managing and implementing large projects for integrated production automation systems.

Clients

Exhibit 6 provides an overview of some of Getronics' major clients.

Exhibit 6

Getronics
A Selection of Major Clients

Industry Sector	Client
Government	Dutch Ministry of Justice Dutch Royal Army Copenhagen Public Services Norwegian Police Force European Commission
Banking and Finance	ABN AMRO Bank ING Bank Deutsche Bank Rabobank
Retail and Wholesale Distribution	MAKRO Albert Heijn Supermarkets
Travel and Transport	Dutch Railways DHL Martinair SABENA
Telecommunications and Media	PTT Telecom Operator Services Libertel CallMax
Manufacturing	Shell International Exploration & Production Dow Chemical Celtona Endesa

Source: Getronics

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Alliances

Getronics' alliances include the following agreements:

- ICL Sorbus Europe-A cooperation agreement to provide total coverage of maintenance services, including mainframes
- ITS-A cooperation agreement that expands Getronics' coverage of network services
- In February 1997, Getronics teamed up with Applied Communications Inc. The two companies will cooperate to offer third-party processing services in areas such as electronic payments and declarations.

Getronics has partnerships with a range of technology companies, such as:

- Hewlett-Packard
- Microsoft
- Cisco Systems
- Newbridge
- Sun Microsystems
- Motorola
- Lotus

INPUT Assessment

Getronics has shown solid growth in recent years on the basis of a sound acquisition strategy and strong financial management. The company has become, especially after the RAET acquisition, one of the largest European IT services companies, particularly in the customer services market.

Getronics has built up a good reputation in its traditional marketplaces, i.e., the Netherlands and the government sector, and has managed to sustain this reputation in the industry.

One of Getronics' key strategic objectives is to internationalize its business. Nevertheless, despite the RAET acquisition which brought some increased international presence, the company still generates the majority of its revenue in its domestic market.

Further, from 1995 to 1996, Getronics grew its international business by only 21%, compared with a domestic growth rate of 33%. In order to realize its expansion strategy, the company needs to start raising its profile outside its home market.

However, with a myriad of trading names in different countries, the company may be making image-building more difficult. A uniform name and profile across Europe and the U.S. could support Getronics' expansion plans and certainly make it easier to convince customers that the company has a wide transnational coverage and support system.

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COMPANY BRIEF

Primary Industry-Specific Market: Medical

Global Health Systems, Inc.
1701 Research Boulevard
Rockville, MD 20850
(301) 258-9212

CEO: Alan Gold, President
Public, OTC
Founded: 1983

Employees: 18 Full-Time (12/86)
Revenue (FYE 12/31/85): $1,238,498, (Six Months Ending 6/30/86): $962,000

The Company: Global Health Systems, Inc. (Global) develops, installs, and maintains integrated patient record-based turnkey systems for ambulatory care facilities and hospitals. The patient record-based systems simultaneously provide users with automated billing and on-line medical data.

Sources of Revenue:
- Turnkey Systems (100%)

Key Products:
- Turnkey Systems (Utilizes DEC mini or microcomputers)
  - The Patient Management System is designed for ambulatory care providers such as municipal health departments, HMOs, universities, family practice clinics, and industrial health centers. It is a fully integrated medical and financial system and includes the following modules:
    - Registration
    - Scheduling
    - Accounts Receivable/Billing
    - Medical Data
    - Report Generation
    - Mailbox
  - The Global Health Information System is an integrated hospital information system that supports both inpatient and outpatient functions and includes the following modules:
    - Admission/Discharge/Transfer
    - Nursing
    - DRG Grouper
    - Medical Data
    - Scheduling
    - Order Entry Results Reporting

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- The Patient Management System accounted for 89% of Global's sales in fiscal year 1985 and the Global Health Information System accounted for the remaining 11%.

Target Industries:
- Medical (100%)
- Hospitals
- Ambulatory care facilities

Geographic Markets:
- U.S. (100%)
- Global's clients are currently geographically distributed through 12 states with the largest number of clients in California (approximately 50%) and Pennsylvania.
- Global markets products directly from its headquarters and through three sales representatives in San Clemente and San Diego (CA) and New Orleans

Significant Events:
- In June 1986, Global successfully completed an initial public offering of 1,150,000 shares of common stock at $1.75 per share

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GLOBAL INFORMATION SYSTEMS TECHNOLOGY, INC.
100 Trade Centre Drive
Suite 301
Champaign, IL 61820
Phone: (217) 352-1165
Fax: (217) 352-9307

Thomas T. Chen, President
Private Company
Total Employees: 40
Total Revenue, Fiscal Year End
12/31/91: $2,100,000

The Company

Global Information Systems Technology (GIST) was formed in 1979 to develop a highly portable computer-based training system and other services to develop automated training systems.

Currently, GIST provides applications software, turnkey systems, and systems integration services. GIST is also a value-added reseller for Sony Videologic and is an authorized reseller for Everex.

As of January 1992, GIST had approximately 40 employees, segmented as follows:

Marketing/sales	9
Customer support/software services	3
Product development	23
General and administrative	5
	40

Key Products and Services

Approximately 75% of GIST's revenue is derived from information services. Approximately 39% of information services revenue was derived from applications software, 39% from turnkey systems, and 22% from systems integration, software maintenance, and training services associated with the company's software and turnkey systems.

- Non-information services, which contribute approximately 25% to revenue, include sales of standalone AT&T computers and the development and manufacturing of black boxes.

The Training Icon Environment (TIE™), introduced in November 1988, is GIST's computer-based training authoring and delivery system for both MS-DOS and UNIX environments.

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- TIE allows courseware designers to create, deliver, and maintain interactive computer-based training applications, without programming assistance.

- The software supports any graphics package that works with Microsoft Windows. TIE is upwardly compatible with Accord and provides an interface to the Accord authoring system when specialized programming is required.

- TIE consists of four components:

  - Authoring aids allow development of computer-based courseware.

  - Computer Management Instruction provides on-line course and lesson administration.

  - The TUTOR Language Processor includes TUTOR, a high-level language developed specifically for computer-based training, and the Runtime Executor.

  - The Training Management Utility Package includes modules for student management, resource management, course scheduling, and data base management.

- TIE operates on IBM PC and compatible computers running MS-DOS, UNIX System V, or UNIX Berkeley 4.2 version operating systems. GIST sells the software separately or bundled with hardware.

- Software only is priced at $2,500. The price for turnkey systems is $5,000 and up, depending on the hardware configuration.

- Currently, there are approximately 400 software-only installations and 800 turnkey system installations.

The Training Management System (TMS) is a turnkey training management system. TMS organizes and manages training scheduling, including information on instructors, training room facilities, training equipment, and students.

- TMS is available on 32-bit microcomputers or supermicrocomputer hosts.

- A single TMS is capable of running very large corporate training facilities.

- The software ranges in price from $8,000 to $60,000.

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GIST currently offers workshops for courseware development professionals.

- Workshops are usually hands-on exercises supported by student workbooks, software product manuals, and an on-site instructor. Workshops range from two days to a week in length.

- Workshops are available at GIST's training facility or at the customer company site. For on-site workshops, training costs are $600 per day plus $60 per student per day, and travel, lodging, and per diem expenses. For scheduled workshops at GIST, training costs are $600 per student per week. Class size is limited to ten students.

GIST provides additional services associated with Accord, including systems integration and software maintenance. Hardware maintenance contracts are available through GIST.

Industry Markets

In 1991, GIST derived approximately 80% of its revenue from the federal government and 20% from various other industries.

Geographic Markets

One hundred percent of GIST's 1991 revenue was derived from the U.S.

Computer Hardware

GIST has the following computers installed for research and development and customer support:

- 70 various microcomputers
- 3 AT&T 3Bs
- 1 DEC MicroVAX
- 2 Sun SPARCstations

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GLOBAL INFORMATION SYSTEMS TECHNOLOGY, INC.
1800 Woodfield Drive
Savoy, IL 61874-9505
(217) 352-1165

Thomas Chen, President
Private Company
Total Employees: 50
Total Revenue, Fiscal Year End 12/31/89: $6,000,000*

*INPUT estimate

The Company

The founders of Global Information Systems Technology (GIST) were part of the development team of the PLATO computer-based training system at the University of Illinois. GIST was formed in 1979 to develop a new computer-based training system and to introduce computer-based training into the office automation environment.

Currently, GIST provides application software, turnkey systems, and systems integration services. GIST is also a value-added reseller for AT&T computers (6386 microcomputer through the 3B2 minicomputer series).

As of September 1989, GIST had approximately 50 employees, segmented as follows:

Marketing/sales	8
Customer support/software services	4
Product development	32
General and administrative	6
	50

Key Products and Services

Approximately 75% of GIST's revenue is derived from information services. Approximately 39% of information services revenue was derived from application software, 39% from turnkey systems, and 22% from systems integration, software maintenance, and training services associated with the company's software and turnkey systems.

- Non-information services, which contribute approximately 25% to revenue, include sales of standalone AT&T computers and the development and manufacturing of black boxes.

Accord™, introduced in October 1984, is GIST's computer-based training authoring and delivery system for UNIX environments.

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- Accord consists of four components:
  - Authoring aids allow development of computer-based courseware.
  - Computer Management Instruction provides on-line course and lesson administration.
  - The TUTOR Language Processor includes TUTOR, a high-level language developed specifically for computer-based training, and the Runtime Executor.
  - The Training Management Utility Package includes modules for student management, resource management, course scheduling, and data base management.
- Accord operates on AT&T and compatible computers running MS-DOS, UNIX System V, or UNIX Berkeley 4.2 version operation systems. GIST sells the software separately or bundled with AT&T hardware.
- Software only is priced at $10,500. The price for turnkey systems ranges from $19,000 to $200,000, depending on the hardware configuration.
- Currently, there are approximately 300 software-only installations and 600 turnkey system installations.

The Training Icon Environment (TIE) is GIST's new MS-DOS-based system that allows courseware designers to create, deliver, and maintain interactive computer-based training applications, without programming assistance.

- The software supports any graphics package that works with Microsoft Windows. TIE is upwardly compatible with Accord and provides an interface to the Accord authoring system when specialized programming is required.
- Through December 1, 1989, TIE software is available for $1,500. A turnkey 80386 authoring workstation with VGA graphics is available for $5,500.

The Training Management System (TMS) is a turnkey training management system. TMS organizes and manages training scheduling, including information on instructors, training room facilities, training equipment, and students. TMS is available on 32-bit microcomputers or supermicrocomputer hosts.

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GIST currently offers eight workshops for courseware development professionals.

- Workshops are usually hands-on exercises supported by student workbooks, software product manuals, and an on-site instructor. Workshops range from two days to a week in length.

- Workshops are available at GIST's training facility or at the customer company site. For on-site workshops, training costs are $600 per day plus $60 per student per day, and travel, lodging, and per diem expenses. For scheduled workshops at GIST, training costs are $600 per student per week. Class size is limited to ten students.

GIST provides additional services associated with Accord, including systems integration and software maintenance. Hardware maintenance contracts are available through GIST, although AT&T provides the actual hardware maintenance.

Industry Markets

In 1988, GIST derived approximately 80% of its revenue from the federal government and 20% from various other industries.

Geographic Markets

One hundred percent of GIST's 1988 revenue was derived from the U.S.

Computer Hardware

GIST has the following computers installed for research and development and customer support:

- 70 AT&T microcomputers
- 3 AT&T 3Bs

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GLOBAL INFORMATION SYSTEMS TECHNOLOGY, INC.
201 West Springfield, Suite 700
Champaign, IL 61820
(217) 352-1165

Thomas Chen, Ph.D., President
Private Company
Total Employees: 20
Total Revenue, Fiscal Year End 12/31/85: $2,000,000*

THE COMPANY

- The founders of Global Information Systems Technology (GIST) were part of the development team of PLATO at the University of Illinois. PLATO is a computer-based training system for mainframe computers. GIST was formed in 1979 to develop a new computer-based training system and to introduce computer-based training into the office automation environment. Currently, GIST provides application software, turnkey systems, and systems integration services. GIST is also a value-added reseller for AT&T computers (3B2 supermicrocomputer through the 3B20 minicomputer series).

- INPUT estimates 1985 revenue was approximately $2 million. INPUT estimates 1984 revenue was less than $1 million.

- As of February 1986, GIST had approximately 20 employees, segmented as follows:

Marketing/sales	2
Customer support/software services	2
Product development	14
General and administrative	2
	20

KEY PRODUCTS AND SERVICES

- Approximately 90% of GIST's 1985 revenue was derived from computer services. GIST derived approximately 39% of computer services revenue from application software, 39% from turnkey systems, and the remaining 22% from systems integration services, software maintenance, and training services associated with its software and turnkey systems.

  - Noncomputer services, including sales of standalone AT&T computers and the development and manufacturing of black boxes, accounted for the remaining 10% of GIST 1985 revenue.

- GIST introduced its computer-based training authoring and delivery software, ACCORD$^{T.M.}$, in October 1984.

*INPUT estimate

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- ACCORD consists of four components, three currently available and the fourth available in late 1986.

  - Authoring Aids allow development of computer-based courseware. The package includes the Prompted Tutorial Editor, the Prompted Quiz Lesson Editor, the Graphics Editor, the Character Set Editor, the Line Set Editor, the Author Mode Module, and the Block Directory Module.

  - Computer Management Instruction (CMI) provides on-line course and lesson administration. The CMI package includes the Student Lesson Router which delivers the courseware, the Student Registration Module, the Curriculum Development Module, and the Student Record and Report Generation Module.

  - The TUTOR Language Processor includes the TUTOR Compiler and the Runtime Executor. TUTOR is a high level language specifically developed for computer-based training by the University of Illinois.

  - The Training Management Utility Package, to be introduced in the third quarter of 1986, will include the Student Management Module, the Resource Management Module, the Course Scheduling Module, and the Database Management Module.

- ACCORD operates on AT&T and compatible computers running MS-DOS, UNIX System V, or UNIX Berkeley 4.2 version operating systems. GIST sells the software separately or bundled with AT&T 3B2 through 3B20 series computers.

  - The CMI Student Lesson Routing module for courseware delivery is also available on the AT&T PC 6300. Since the IBM PC is compatible with the AT&T PC, the delivery system will also run on the IBM but with less screen resolution. The AT&T PC is available as a graphics terminal when connected to a 3B computer.

- Software only is priced at $10,000. The price for turnkey systems ranges from $19,000 to $200,000 depending on the hardware configuration.

  - For cost estimate purposes the per terminal cost is $5,000 for a 6 terminal system and $3,500 per terminal for a 16 terminal system. This includes hardware and software.

- Currently, there are approximately 35 software only installations and 265 turnkey system installations.

- GIST offers five training workshops for courseware development professionals. The five workshops include UNIX for Novice Users, CBT Courseware

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Development and Delivery, the TUTOR Authoring Language (I and II), UNIX and ACCORD System Administration, and CBT Courseware Projects Management.

- Workshops are usually hands-on exercises supported by student workbooks, software product manuals, and an on-site instructor. Workshops range from two days to five days in length.

- Workshops are available at GIST's training facility or at the customer company site. For on-site workshops, training costs are $600 per day plus $60 per student, and travel, lodging, and per diem expenses. For scheduled workshops at GIST, training costs are $600 per student per week. Class size is limited to ten students.

- GIST provides additional services associated with ACCORD including systems integration and software maintenance. Hardware maintenance contracts are available through GIST although AT&T provides the actual hardware maintenance.

INDUSTRY MARKETS

- GIST's computer-based training software and turnkey systems are cross-industry education and training applications. In 1985 GIST derived approximately 50% of its revenue from the federal government. The remaining 50% was derived across all industry sectors.

GEOGRAPHIC MARKETS

- Approximately 80% of 1985 revenue was derived from the U.S. The remaining 20% was derived primarily from Canada, Europe, and Taiwan.

  - Sales in the U.S. and Canada are through GIST's headquarters office. Foreign sales are through distributors: Olivetti in Europe and RPT International in Taiwan.

COMPUTER HARDWARE

- GIST has the following hardware installed:

  - 20 AT&T Personal Computers.
  - 4 AT&T 3Bs.
  - 1 Zilog 32.
  - 1 NCR Tower 1632.

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INPUT

GLOBAL SOFTWARE, INC.

1009 Spring Forest Road
Raleigh, NC 27615
(919) 872-7800
(800) 326-3444

President:	Ron Kupferman
Status:	Subsidiary
Parent:	Hathaway Corporation
Total Employees:	250
Total Revenue:	$26,300,000
Fiscal Year End:	6/30/92

Key Points

- Global Software, Inc. develops, markets, and supports IBM-based accounting applications software products for clients across industries, as well as vertical software products for the health care industry.
- In June 1992, Software Magazine picked Global Software as one of the Top 100 Leading Software Vendors in the United States.
- Global Software offers client/server-based software applications. These applications will face increased competition 1993 as PeopleSoft and Integral Systems enter the client/server financial applications market.
- Global software has invested approximately 18% of total revenue per year on research and development, focussing on new client/server applications.

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Company Description

Global Software, Inc. develops, markets, and supports IBM-based accounting applications software products for clients across industries, as well as vertical software products for the health care industry. The company also provides various professional services in support of its products.

- Global Software was formed in 1981 by a group of former Informatics General employees that purchased the rights to Informatics' cross-industry accounting applications software packages.
- In May 1985, Global was acquired by Hathaway Corporation (Denver, CO) for $6.9 million in cash and notes.

Operations/ Structure

U.S. offices are located in Raleigh (NC), Atlanta (GA), Dallas (TX), and California.

The company also has an office in London and has international affiliates and agents in Mexico, Puerto Rico, France, and Belgium.

Strategy

Businesses are turning to client/server accounting packages to increase business unit or department responsibility for their own accounting processes. Global Software's product, Harmonix, is an accounting software application that is based on client/server technology.

Global Software has targeted international markets for its health care applications. The primary operational focus for health care applications is materials management and financial reporting.

Financials

Global Software's fiscal 1992 revenue was approximately $26.3 million, a 4% increase over fiscal 1991 revenue of $25.4 million. A three-year revenue summary follows:

GLOBAL SOFTWARE, INC.
THREE-YEAR REVENUE SUMMARY
($ millions)

FISCAL YEAR	6/92	6/91	6/90
Revenue	$26.3	$25.4	$25.0
· Percent increase from previous year	4%	1%	10%

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Acquisitions/ Divestitures

Acquisitions

In December 1990, Global Software acquired the assets of Compro Corporation of Norcross (GA). The purchase included five application packages (accounts receivable, fixed assets, general ledger, accounts payable, and forecasting), as well as customer support facilities in Atlanta, approximately 13 employees, and about 100 Compro customers under maintenance and contracts.

Divestitures

In 1991, the CARMS (Credit and Accounts Receivable Management System) financial system was sold to Walker Interactive Systems, Inc. for $6.75 million.

Alliances

Global Software has strategic partnering relationships with several vendors, including IBAX (a major health care supplier) and several Big 6 accounting firms.

Employees

Global Software currently has approximately 250 employees, segmented as follows:

Marketing/sales		35
Software services & customer support	124	
General and administrative		36
Technical development		55
		250

Competition

Major competitors include D&B Software, Computer Associates, J.D. Edwards, and Software 2000.

Key Products and Services

Global Software derives approximately 70% of its revenue from software products (30% license fees and 40% maintenance fees). The remaining 30% of revenue is derived from associated support services, such as software installation, consulting, and education and training.

Global Software's accounting software products can operate individually or as an integrated system.

- The products operate on IBM 43XX, 30XX, 937X and compatible mainframes under DOS/VSE, MVS/SP, MVS/XA, CICS , IBM System 38 minicomputers, and AS/400 systems.

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- The midrange business unit offers an integrated Financial Control System for the IBM AS/400 that includes modules for general ledger, financial analysis, inventory, accounts receivable, cost control, accounts payable, purchase order, and fixed asset accounting applications.

The company's current product offerings are shown in the following exhibit.

GLOBAL SOFTWARE, INC.

SOFTWARE PRODUCTS

	NUMBER INSTALLED	
PRODUCT	S/3X AS/400	Mainframe
General Ledger	86	225
Accounts Payable	58	127
Purchase Order	21	45
Accounts Receivable	53	21
Sales/Distribution	6	17
Fixed Assets	37	175
Financial Control System (FCS)	--	100
Accounts Payable System (APS)	--	38
Hospital Materials Management	--	24
Hospital Management Accounting System (HMAS)	12	--
Hospital Cost Management System (HCMS)	--	11
Integrated Cost Control System (ICCS)	15	2
Global View	12	70
Executive Information System	1	3
Compro products	--	122

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*S*W*A*T Software Walkthrough*

Global Software offers S*W*A*T™ (Software Walkthrough), a program designed to implement the purchase of Global Software products. Installation of software and training of personnel is usually accomplished within 30 to 90 days, depending on the client's environment.

- The S*W*A*T approach consists of several phases:
  - Pre-S*W*A*T I: Global Software staff comes on-site to review the company's requirements.
  - Pre-S*W*A*T II: A second consulting session is held on-site to review and validate converted data.
  - S*W*A*T Workshop: Clients attend a five-day training session conducted at one of Global Software's S*W*A*T centers.
  - Post S*W*A*T: Additional management training, consulting, technical assistance, and end user training is performed on-site some time after the S*W*A*T Workshop. Support is provided to review progress, answer questions, and fine-tune the system.
- S*W*A*T pricing ranges from $15,000 to $55,000. Over 600 companies have used the program.

Annual Improvement, Maintenance, and Support

Global Software provides customer service through a program called Annual Improvement, Maintenance, and Support (AIMS).

- An AIMS agreement provides customers with:
  - Product enhancements stemming from user requirements
  - Monthly distribution of program fixes
  - Toll-free telephone hotline service 24 hours a day
  - Newsletters that provide the status of program fixes and product development efforts
- An AIMS contract is priced at approximately 11% to 18% of the existing product license fee per year.

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Clients

The company currently has over 3,000 product installations used by about 1,500 customers. Selected clients include Frigidaire and National Semiconductor.

Industry Markets

The majority of Global Software's revenue (60%) is derived from clients across industries. The company derives approximately 40% of its revenue from vertical products for the health care industry.

Clients include small to large companies in the manufacturing, distribution, utilities, transportation, and health care industries.

Geographic Markets

Approximately 95% of Global Software's fiscal 1992 revenue was derived from the U.S. and 5% from Canada, the U.K., and other foreign countries.

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GLOBAL SOFTWARE, INC.
1009 Spring Forest Road
Raleigh, NC 27615
(919) 872-7800
(800) 326-3444

Ron Kupferman, President
Wholly Owned Subsidiary of
Hathaway Corporation
Total Employees: 250
Total Revenue, Fiscal Year End
6/30/91: $25,300,000

The Company

Global Software, Inc. develops, markets, and supports IBM-based accounting application software products for clients across industries, as well as vertical software products for the health care industry. The company also provides various professional services in support of its products.

- Global Software was formed in 1981 by a group of former Informatics General employees that purchased the rights to Informatics' cross-industry accounting application software packages.

- In May 1985, Global was acquired by Hathaway Corporation (Denver, CO) for $6.9 million in cash and notes.

Global Software's fiscal 1991 revenue reached $25.3 million, a 1% increase over fiscal 1990 revenue of $25 million. A three-year revenue summary follows:

GLOBAL SOFTWARE, INC.
THREE-YEAR REVENUE SUMMARY
($ millions)

FISCAL YEAR	6/91	6/90	6/89
Revenue	$25.3	$25.0	$22.7
· Percent increase from previous year	1%	10%	N/A

In December 1990, Global Software acquired the assets of Compro Corporation of Norcross (GA).

- The purchase included five application packages (accounts receivable, fixed assets, general ledger, accounts payable, and forecasting), as well as customer support facilities in Atlanta,

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approximately 13 employees, and about 100 Compro customers under maintenance and contracts.

Global Software currently has approximately 250 employees, segmented as follows:

Marketing/sales	35
Software services and customer support	124
General and administrative	36
Technical development	55
	250

Major competitors include D&B Software, Computer Associates, J.D. Edwards, and Software 2000.

Key Products and Services

Global Software derives approximately 70% of its revenue from software products (30% license fees and 40% maintenance fees). The remaining 30% of revenue is derived from associated support services, such as software installation, consulting, and education and training.

Global Software's accounting software products can operate individually or as an integrated system. The company currently has over 3,000 product installations used by about 1,500 customers.

- The products operate on IBM 43XX, 30XX, 937X and compatible mainframes under DOS/VSE, MVS/SP, MVS/XA, CICS , IBM System 38 minicomputers, and AS/400 systems.
- The midrange business unit offers an integrated Financial Control System for the IBM AS/400 that includes modules for general ledger, financial analysis, inventory, accounts receivable, cost control, accounts payable, purchase order, and fixed asset accounting applications.
- Global offers Cooperative Processing applications using an intelligent workstation and a graphical user interface to provide a "user friendly" system.
- The company's current product offerings are shown in the exhibit.

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EXHIBIT

GLOBAL SOFTWARE, INC.

SOFTWARE PRODUCTS

	NUMBER INSTALLED	
PRODUCT	S/3X AS/400	Mainframe
General Ledger	86	225
Accounts Payable	58	127
Purchase Order	21	45
Accounts Receivable	53	21
Sales/Distribution	6	17
Fixed Assets	37	175
Financial Control System (FCS)	--	100
Accounts Payable System (APS)	--	38
Hospital Materials Management	--	14
Hospital Management Accounting System (HMAS)	12	--
Hospital Cost Management System (HCMS)	--	11
Integrated Cost Control System (ICCS)	15	2
Global View	12	70
Executive Information System	1	3
Compro products	--	122

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Global Software offers S*W*A*T™ (Software Walkthrough), a program designed to implement the purchase of Global Software products. Installation of software and training of personnel is usually accomplished within 30 to 90 days, depending on the client's environment.

- The S*W*A*T approach consists of several phases:
  - Pre-S*W*A*T I: Global Software staff comes on-site to review the company's requirements.
  - Pre-S*W*A*T II: A second consulting session is held on-site to review and validate converted data.
  - S*W*A*T Workshop: Clients attend a five-day training session conducted at one of Global Software's S*W*A*T centers.
  - Post S*W*A*T: Additional management training, consulting, technical assistance, and end user training is performed on-site some time after the S*W*A*T Workshop. Support is provided to review progress, answer questions, and fine-tune the system.
- S*W*A*T pricing ranges from $15,000 to $55,000. Over 600 companies have used the program.

Global Software provides customer service through a program called Annual Improvement, Maintenance, and Support (AIMS).

- An AIMS agreement provides customers with:
  - Product enhancements stemming from user requirements
  - Monthly distribution of program fixes
  - Toll-free telephone hotline service 24 hours a day
  - Newsletters that provide the status of program fixes and product development efforts
- An AIMS contract is priced at approximately 11% to 18% of the existing product license fee per year.

Industry Markets

The majority of Global Software's revenue is derived from clients across industries. The company derives approximately 40% of its revenue from vertical products for the health care industry.

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Clients include small to large companies in the manufacturing, distribution, utilities, transportation, and health care industries.

Global Software has strategic partnering relationships with several vendors, including IBAX (a major health care supplier) and several Big 6 accounting firms.

Geographic Markets

Approximately 95% of Global Software's fiscal 1991 revenue was derived from the U.S. and 5% from Canada, the U.K., and other foreign countries.

U.S. offices are located in Raleigh, Atlanta, Chicago, Dallas, and in New York and California.

The company also has an office in London and has international affiliates and agents in Mexico, Puerto Rico, France, and Belgium.

Computer Hardware

Global Software maintains the following equipment at its headquarters:

- 1 Amdahl
- 1 IBM 4331
- 1 IBM AS/400
- 1 IBM S/38

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GLOBAL SOFTWARE, INC.
1009 Spring Forest Road
Raleigh, NC 27615
(919) 872-7800
(800) 334-7192

Ron Kupferman, President
Wholly Owned Subsidiary of
Hathaway Corporation
Total Employees: 200
Total Revenue, Fiscal Year End
6/30/88: $23,000,000

The Company

Global Software, Inc. develops, markets, and supports IBM-based accounting application software products for clients across industries, as well as vertical software products for the health care industry. The company also provides various professional services in support of its products.

- Global Software was formed in 1981 by a group of former Informatics General employees that purchased the rights to Informatics' cross-industry accounting application software packages.
- In 1983 Global Software was acquired by Storage Technology Corporation for $14 million. In October 1983, Global-Ultimacc Systems, Inc. was formed as a result of the acquisition and merging of Global Software into Ultimacc Systems, Inc. (Boulder, CO), a partially owned subsidiary of Storage Technology.
- In May 1985 Global was acquired by Hathaway Corporation (Denver, CO) for $6.9 million in cash and notes and renamed Global Software, Inc.

Global Software's fiscal 1988 revenue reached an estimated $23 million, a 13% increase over fiscal 1987 revenue of $20 million. A four-year revenue summary follows:

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GLOBAL SOFTWARE, INC.
FOUR-YEAR REVENUE SUMMARY
($ millions)

	FISCAL YEAR			
ITEM	6/88	6/87	6/86	6/85
Revenue	$23.0	$20.0	$13.0	$9.0
• Percent increase from previous year	13%	54%	44%	N/A

Global Software management estimates the average pretax income for the past three years to be approximately 17%.

In December 1985 Global Software acquired the commercial segment of the Application Products Division of UCCEL for an estimated $3 million in cash and notes.

- The sale included five application packages - accounts receivable, fixed assets, general ledger, accounts payable, and a tax program, as well as customer support facilities in Dallas and Chicago, approximately 80 UCCEL employees and about 1,000 UCCEL customers under maintenance contracts.

- Global Software has integrated these products into its product line.

In July 1988 Global Software established a Professional Services Division to provide customized versions of its software products.

Global Software currently has approximately 200 employees, segmented as follows:

Marketing/sales	30
Software services and customer support	85
General and adminstrative	35
Technical development	50
	200

Major competitors include Management Science America, McCormack & Dodge, and Computer Associates.

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Key Products and Services

Global Software derives approximately 85% of its revenue from software products (70% license fees and 30% maintenance fees). The remaining 15% of revenue is derived from associated support services, such as software installation, consulting, and education and training.

Global Software's accounting software products can operate individually or as an integrated system. The company currently has over 2,500 product installations used by about 1,200 customers.

- The products operate on IBM 43xx, 30xx, 937x and compatible mainframes under DOS/VSE, MVS/SP, MVS/XA, CICS , IBM System 36 and System 38 minicomputers, and AS/400 systems.

- Global/38 is an integrated financial control system for the IBM System 38 that includes modules for general ledger, financial analysis, profit planning and forecasting, accounts receivable, cost control, accounts payable, purchase order, and fixed asset accounting applications.

- The Cooperative Processing System, announced in July 1987, consists of microcomputer versions of Global Software's mainframe products that relate to mainframe information via standard data transfer links. To date, a module for Budgeting has been released and modules for Travel & Expenses are under development.

- The company's current product offerings are shown in the exhibit.

Global Software offers S*W*A*T (Software Walkthrough), a program designed to implement purchase Global Software products. Installation of software and training of personnel is usually accomplished within 30 to 90 days, depending on the client's environment.

- The S*W*A*T approach consists of several phases:

  - Pre-S*W*A*T I: Global Software staff comes on-site to review the company's requirements.

  - Pre-S*W*A*T II: A second consulting session is held on-site to review and validate converted data.

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EXHIBIT

GLOBAL SOFTWARE, INC.

SOFTWARE PRODUCTS

PRODUCT	NUMBER INSTALLED
Global General Ledger and Financial Reporting	850
Global Accounts Payable	325
Global Purchase Order	45
Global Credit and Accounts Receivable Management System	335
Global Fixed Assets	300
Global Integrated Cost Control System	29
Global Healthcare Management Accounting System	40
Global Hospital Material Management System	7
Global Job Cost Control System	8
Global Integrated Sales, Distribution, and Purchasing Management System	20
Global Link (micro to mainframe link)	10
Global View (reporting and inquiry facility)	40
Global/38	250
Cooperative Processing System - Budgeting	15

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- S*W*A*T Workshop: Clients attend a five-day training session conducted at one of Global Software's S*W*A*T centers.

- Post S*W*A*T: Additional management training, consulting, technical assistance, and end user training is performed on-site some time after the S*W*A*T Workshop. Support is provided to review progress, answer questions, and fine tune the system.

- S*W*A*T pricing ranges from $10,000 to $20,000. Over 300 companies have used the program.

Global Software provides customer service through a program called Annual Improvement, Maintenance, and Support (AIMS).

- An AIMS agreement provides customers with:

  - Product enhancements stemming from user requirements.
  - Monthly distribution of program fixes.
  - Toll free telephone hotline service from 9:00 a.m. to 5:00 p.m.
  - Newsletters that provide the status of program fixes and product development efforts.

- An AIMS contract is priced at approximately 10-15% of the existing product license fee per year.

Industry Markets

The majority of Global Software's revenue is derived from clients across industries. The company derives approximately 15% of its revenue from vertical products for the health care industry.

Clients include small to large companies in the manufacturing, distribution, utilites, transportation, and health care industries.

Global Software has strategic partnering relationships with several vendors, including Applied Data Research, Baxter Travenol, Datacare, HBO & Company, and several Big 8 accounting firms.

Geographic Markets

Approximately 70% of Global Software's fiscal 1988 revenue was derived from the U.S. and 30% from Canada, the U.K., and other foreign countries.

U.S. offices are located in Raleigh, Chicago, Dallas, Hauppauge (NY), and Woodland Hills (CA).

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The company also has an office in London and has international affiliates and agents in Mexico, Brazil, Argentina, Western Canada, Puerto Rico, France/Belgium, Venezuela, Africa, and Hong Kong.

Computer Hardware

Global Software maintains the following equipment at its headquarters:

- 1 IBM 4331.
- 1 IBM System 34.
- 1 IBM System 36.
- 1 IBM System 38.
- 2 Magnuson M-80s.

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GLOBAL SOFTWARE, INC.
1009 Spring Forest Road
Raleigh, NC 27619
(919) 872-7800

Ron Kupferman, President
Wholly Owned Subsidiary of Hathaway Corporation
Total Employees: 100
Total Revenue, Fiscal Year End 12/31/85: $10,000,000*

THE COMPANY

- Global Software, Inc. was formed in 1981 by a group of former Informatics General employees that purchased the rights to Informatics' cross-industry accounting application software packages.
  - In October 1983, Global-Ultimacc Systems, Inc. was formed as a result of the acquisition and merging of Global Software into Ultimacc Systems, Inc. (Boulder, CO), a partially owned subsidiary of Storage Technology Corporation. Storage Technology acquired Global for $14 million.
  - In May 1985 Global was acquired by Hathaway Corporation (Denver) for $6.9 million in cash and notes.
  - Global currently develops, markets, and supports business applications software for certain vertical and cross-industry markets. Global also provides professional services for implementing purchased Global software.

GLOBAL SOFTWARE, INC.
FOUR-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	1985*	1984	1983	1982
Total revenue	$10.0	$8.4	$5.5	$3.1
. Percent increase from previous year	19%	53%	77%	N/A

- Global management estimates the average pretax income for the past three years to be approximately 17%.

*Company estimate

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- Global has approximately 100 employees segmented as follows:

Marketing/sales	25
Software services and customer support	20
General and administrative	20
Technical development	35
	100

- Major competitors of Global's software products include Management Science America, McCormack and Dodge, and Software International.

KEY PRODUCTS AND SERVICES

- Global derives virtually all of its revenue from software products (70% license fees and 30% maintenance fees). Global also derives revenue from associated support services such as software installation, consulting, and education and training.

- Global Software's base line of accounting applications software is the six packages originally acquired from Informatics General. Each system is interactive and can be fully integrated with the other Global financial control systems.

  - Systems operating on IBM 360/370, 43XX, 30XX, and IBM Systems 34/36/38, under DOS/OS/VSE/CICS include:

    . Global General Ledger and Financial Reporting System.
    . Global Integrated Cost Control System.

  - Systems operating on IBM 360/370, 43XX, 30XX, and IBM System 38, under DOS/OS/VSE/CICS include:

    . Global Accounts Payable System.
    . Global Accounts Receivable System.
    . Global Purchase Order System.

  - Each system ranges in price from $15,000 to $100,000.

- Global introduced CONTROL/38 in March 1983. CONTROL/38 is an integrated financial control system composed of nine accounting modules, developed for the IBM System 38. CONTROL/38 also supports multicompany or multicurrency users with flexible account numbering and an automatic interface between systems.

  - CONTROL/38 modules include general ledger (GL/38), financial analysis (EXEC/38), profit planning and forecasting (PPF/38), accounts receivable (AR/38), Integrated Cost Control System (ICCS/38), accounts payable (AP/38), Purchase Order System (PO/38), and fixed asset accounting (FA/38).

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- The system is priced at $100,000.

- Currently, there are 40 installations of CONTROL/38.

- Global developed the Hospital Cost Control System (HCCS) in response to the passage into law of the prospective payment system, a mechanism for containing federal health expenditures. Introduced in August 1984, HCCS organizes and analyzes diagnosis related grouping (DRG) costs, and provides actual cost variance analysis, gross revenue accounting, profitability analysis, financial modeling and forecasting, and trend analysis.

  - HCCS operates on IBM Systems 34/36/38, 43XX, 30XX, and plug-compatible mainframes. The package ranges in price from $30,000 to $200,000.

  - There are approximately 15 systems installed.

- GLOBE-LINK/REAL TIME, introduced in October 1984, is a micro-to-mainframe link for data transfer between IBM Personal Computers (PC, PC-XT, or PC-AT), or compatibles and IBM 4300 series or compatible host computers.

  - GLOBE-LINK/REAL TIME allows users to download and upload VSAM files without special programming or rekeying of data. Users may then structure custom-designed financial models using VisiCalc, Lotus 1-2-3, MultiPlan, or other personal computer spreadsheet programs.

  - There are three versions of GLOBE-LINK/REAL TIME.

    . GLOBE-LINK/GL accesses selected Global General Ledger files.

    . GLOBE-LINK/XT allows access to the family of Global financial application data bases including General Ledger, Accounts Payable, Accounts Receivable, Purchase Order, and Standard Cost Accounting.

    . GLOBE-LINK/XTU provides users with a micro-mainframe link to any VSAM data base.

  - The operating environment of GLOBE-LINK/REAL TIME requires the following:

    . The IBM Personal Computer or compatible running on PC/DOS or MS/DOS must have either an IRMA 3270 terminal emulator board with coaxial cable connection to an IBM control unit or an asynchronous communication card and modem with a switched (dial) telephone line.

    . The mainframe host must have CICS/VS 1.4 or above with standard asynchronous or IBM 3270 protocols, VSAM access

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method support, and COBOL DOS/VSE Release 3 or OS/VS COBOL.

- In September 1985, Global introduced the Integrated Sales, Distribution, and Purchasing System (ISDP). ISDP includes order processing and billing, inventory management, and sales analysis capabilities.
  - The system operates on the IBM 43XX with DOS/OS operating systems.
  - ISDP ranges in price from $100,000 to $250,000.
  - There are six installations.
- Global offers S*W*A*T (Software Walkthrough), a program designed to implement purchased Global software. Installation of software and training of personnel is usually accomplished in one week, resulting in a fully operational system.
  - The S*W*A*T approach consists of three phases:
    - Phase I is Pre S*W*A*T. An implementation team comes on-site to review the company's requirements.
    - Phase II is the S*W*A*T workshop. Customer employees go through a five-day customized training class at a Global S*W*A*T center.
      - The class uses a system, generated and built during Phase I, that contains the customer's own data.
    - Phase III is Post S*W*A*T. On-site support is given to review progress, fine tune the system, and to provide training to personnel who did not attend the workshop.
  - The S*W*A*T approach is used for IBM Systems 34/36/38, 43XX, and 30XX computers, and plug-compatible mainframes. The program ranges in price from $10,000 to $20,000.
- Global provides customer service through a program called Annual Improvement, Maintenance, and Support (AIMS).
  - An AIMS agreement provides customers with:
    - Product enhancements stemming from user requirements.
    - Monthly distribution of program fixes.
    - Toll-free telephone hotline service from 9:00 a.m. to 5:00 p.m.

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  - Newsletters that provide status of program fixes and product development efforts.

- An AIMS contract is priced at approximately 10% of the existing product license fee per year.

INDUSTRY MARKETS

- The majority of Global's revenue is derived from clients across all industry sectors. Global derives approximately 15% of its revenue from the medical industry with its Hospital Cost Control System.

- Global's primary target market is financial management departments in corporations with revenue over $30 million.

GEOGRAPHIC MARKETS

- Approximately 85% of 1984 revenue was derived in the U.S. The remaining 15% was derived from Canada, the United Kingdom, and other foreign countries.

- Global maintains regional offices in Raleigh (NC), Chicago, Los Angeles, Houston, and Waldwick (NJ). Global conducts its S*W*A*T workshops in these regional offices.

  - Additional sales offices are located in Atlanta, Boston, Denver, Miami, New York, and Philadelphia.

  - Global also maintains sales offices in Toronto and London. A network of approximately 25 agents cover the rest of the world.

COMPUTER HARDWARE AND SOFTWARE

- Global Software maintains the following equipment in its Raleigh (NC) headquarters office.

  - 1 IBM 4331.
  - 2 Magnuson.

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GOAL SYSTEMS INTERNATIONAL INC.
Goal Systems Building
7965 N. High Street
Columbus, OH 43235
(614) 888-1775

David C. Wetmore, Chairman, President, and CEO
Public Corporation, NASDAQ
Total Employees: 900 (1/91)
Total Revenue, Fiscal Year End 1/31/91: $116,951,000

The Company

Goal Systems International Inc., founded in 1975 and incorporated in 1977, markets and supports a range of MVS, VM, and VSE data center management systems software products. The company also provides computer-based training (CBT) and computer-based reference (CBR) products and associated professional services. Goal Systems currently offers more than 45 products and has 28,000 units installed for 7,000 customers worldwide.

In May 1991, Goal Systems completed a second public offering of 2.5 million shares of its common stock, of which 0.6 million were sold by the company and the remainder by selling shareholders. Net proceeds to the company of $8 million will be used for general corporate purposes.

- The company's initial public offering of 2.9 million shares in May 1989 generated net proceeds to the company of approximately $16.1 million.

Subsequent to the end of fiscal 1990, Goal Systems made the following acquisitions:

- In February 1990, Goal Systems acquired Essential Software of Los Angeles (CA) for 1.5 million shares of Goal common stock plus $106,899 in cash. The acquisition was accounted for as a pooling of interests.
  - Essential Software was a mainframe software firm that specialized in automated report distribution and disaster recovery systems used on the MVS operating system. Its product line has been merged into Goal Systems Data Center Management Division.
- In February 1990, Goal Systems also acquired Tower Control Group of Costa Mesa (CA) for $6.9 million plus contingent

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payments based on revenues generated by certain acquired products. The acquisition was accounted for as a purchase.

- Tower was a mainframe software company specializing in automated tape and disk management systems for the VSE and VM operating systems.

- Tower's product line has been merged into Goal Systems' Data Center Management Division.

- In April 1990, Goal Systems acquired MVS Software, Inc. of Los Angeles (CA) for over 1.8 million shares of Goal common stock plus $1.7 million in cash. The acquisition was accounted for as a pooling of interests.

- MVS was a mainframe software company that specialized in OPS/MVS, an automated system operations software product for the MVS operating system.

As a result of the pooling-of-interests acquisitions described above, Goal Systems has restated prior years' financials. Fiscal 1991 revenue reached $117.0 million, a 35% increase over fiscal 1990 revenue of $86.4 million. Net income for fiscal 1991 was $10.3 million and includes one-time merger and acquisition costs of $3.7 million (after tax). A five-year financial summary follows:

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GOAL SYSTEMS INTERNATIONAL INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR					
ITEM	1/91	1/90	1/89	1/88	1/87	CAGR
Revenue	$117.0	$86.4	$61.0	$45.5	$32.4	38%
· Percent increase from previous year	35%	42%	34%	41%	N/A	
Income before taxes	$16.0 (a)	$16.0	$11.1	$10.3	$7.9	19%
· Percent increase from previous year	--	44%	8%	30%	N/A	
· Gross margin	14%	18%	18%	23%	24%	
Net income	$10.3 (a)	$10.5	$6.9	$6.0	$4.2	25%
· Percent increase (decrease) from previous year	(2%)	53%	14%	42%	N/A	
· Net margin	9%	12%	11%	13%	13%	
Earnings per share	$0.53	$0.57	$0.43	$0.41	$0.30	15%
· Percent increase (decrease) from previous year	(7%)	33%	5%	37%	N/A	

(a) Includes one-time merger and acquisition expenses totalling $5.2 million before taxes ($3.7 million after tax or $0.20 per share).

Goal Systems' management attributes revenue growth in fiscal 1991 to continued expansion of the sales force, including the opening of new direct sales offices and the start up of new distributors, market acceptance of new products, continued success with existing products and, to a lesser extent, price increases.

- Revenue from the data center management (DCM) product line increased 39% during fiscal 1991. International DCM revenue increased 70% and North American revenue increased 24%.

- Goal Systems currently has over 28,000 product installations worldwide, compared to 23,000 installations a year ago.

Goal Systems is currently organized into two divisions and six international subsidiaries.

- The Data Center Management (DCM) Division develops, markets, and supports the company's data management systems software products for automated systems operations, storage management, resource optimization, and systems assurance.

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- The Information Technology Division (ITD) provides CBT and CBR systems, as well as CBT courseware and professional services designed to enhance employee productivity.
- Goal Systems International Ltd., headquartered in Hertfordshire (England), markets and supports the company's products in the U.K. and Ireland.
- Goal Systems International BV markets the company's products in the Netherlands.
- Goal Systems International GmbH, located in Frankfurt, markets the company's products in Germany, Switzerland, and Austria.
- Goal Systems International S.A.R.L., located in Paris (France), markets the company's products in France and Belgium.
- Goal Systems International S.R.L., located in Milan (Italy), markets the company's products in Italy.
- Goal Systems International Pty Ltd., located in Gladesville (Australia), markets the company's products in Australia.

In January 1991, Goal Systems had 868 employees, of which 395 were located at headquarters, 18 in other offices throughout the U.S., and 174 in eight subsidiary offices in Europe and Australia. The company currently has approximately 900 employees.

Competitors for Goal Systems' DCM products include IBM, Computer Associates International, and LEGENT Corporation. In the CBT product area, the primary competitor is Applied Learning.

Key Products and Services

A three-year summary of source of revenue follows:

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GOAL SYSTEMS INTERNATIONAL, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1/91		1/90		1/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Software licenses	$85.0	73%	$66.3	77%	$48.6	80%
Maintenance	24.3	21%	15.4	18%	9.4	15%
Professional services	3.6	3%	1.5	2%	0.9	2%
Finance charges	4.0	3%	3.2	3%	2.1	3%
TOTAL	**$116.9**	**100%**	**$86.4**	**100%**	**$61.0**	**100%**

A three-year summary of source of revenue by product/service line follows ($ millions):

	FISCAL YEAR					
	1/91		1/90		1/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
DCM products	$93.1	80%	$67.2	78%	$42.1	69%
ITD products	23.9	20%	19.2	22%	17.1	28%
Other (a)	--	--	--	--	1.8	3%
TOTAL	**$117.0**	**100%**	**$86.4**	**100%**	**$61.0**	**100%**

(a) Includes products/services divested during fiscal 1989.

Goal Systems' current product offerings are summarized in the exhibit.

The company's data center management systems software products run on IBM and compatible mainframes in MVS, VM, and VSE operating environments and DB2, VSAM, and CICS subsystems and support the following functions:

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EXHIBIT

GOAL SYSTEMS INTERNATIONAL SOFTWARE PRODUCTS

PRODUCTS	DESCRIPTION	OPERATING ENVIRONMENT
Automated Systems Operations		
- OPS/MVS	Console message manager	MVS
- JOBTRAC	Job scheduling system	MVS
- FAQS; FAQS/AOS	Operations enhancement	MVS, VSE, VM
- FAQS/PCS	Job scheduling management	VSE
- FLEE	Program library control	VSE
- ACCESS	VM/CMS file sharing	VM
- EXPRESS DELIVERY	Report distribution and tracking	MVS
- SAR	Sysout archival and retrieval	MVS
DB2 Tools		
- Insight for DB2	Performance monitor for DB2	MVS
- DB-Delivery for DB2	Utility toolkit for DB2	MVS
- FAVER for DB2	DB2 backup and restore	MVS
- Preview for DB2	Performance predictor	MVS
- In2itive for DB2	Expert system-based trend analysis	MVS
Integrated Storage Management		
- EPIC	Tape and disk management	MVS, VSE
- PDSMAN	Program library control	MVS
- FAVER	VSAM backup/restore system	MVS, VSE
- VSAMAID	VSAM performance monitor	MVS, VSE
- MASTERCAT	Catalog navigation aid	MVS, VSE
- COMPRESSOR	DASD data compressor	MVS, VSE
- HYBER-BUF	Allocation expert for I/O buffers	MVS, VSE
Resource Optimization		
- EXTEND	Lock file replacement	VSE
- EXPLORE	Performance monitor	MVS, VM, VSE
- EXPLORE for CICS	Performance monitor	MVS, VSE
- CICS EXPRESS	Performance manager for CICS	MVS, VSE
- APAS SOLUTION	Performance monitor for ADABAS	MVS, VSE
Systems Assurance		
- ALERT; ALERT/CICS	Data security management	VSE, VM, CICS
- ARISE II	Automated disaster recovery	MVS
Information Technology		
- PHOENIX	Computer-based training system	MVS, VM
- PHOENIX/MICRO	Computer-based training system	PC
- PHOENIX Courseware	Computer courseware	MVS, VM, PC
- PREFERENCE	Computer-based reference system	MVS, VM

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- Production control
- Storage management products for VSAM
- Performance monitoring
- Security

For fiscal 1991, revenue from data center management products was derived approximately as follows:

Automated Systems Operations	44%
Storage Management	35%
Resource Optimization	17%
Systems Assurance	4%
	100%

The Information Technology Division offers the following products and services:

- The PHOENIX System is a CBT software system that permits authoring of instructional courses on any subject for subsequent presentation at any terminal in a mainframe's network. The system also supports student progress and course status recordkeeping and reporting. The system is used primarily by large organizations that have a need to provide standardized training to large numbers of personnel in multiple locations. The PHOENIX System licenses for $64,000.

  - PHOENIX Presentation System, a subsystem of the PHOENIX System, allows customers to present, but not author, CBT courses developed by Goal Systems or others. The system licenses for $13,500.

  - PHOENIX-VAR consists of special versions of the PHOENIX Presentation System designed to present only CBT courses marketed by third-party vendors, such as Applied Learning International.

- PHOENIX/Micro System permits CBT courses to be authored and presented on standalone or networked IBM or compatible microcomputers. The system licenses for $21,500 in North America.

- Goal Systems' PHOENIX Courseware Group offers a library of 45 standard CBT courses for mainframes and microcomputers. Mainframe products range in price from $2,000 to $19,240.

- PREFERENCE, introduced in 1988, is a computer-based reference software product that permits management of, and

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access to, reference material and other documentation within an IBM mainframe environment. PREFERENCE licenses for $94,000.

- ITD Professional Services Group, with 24 employees located in Dallas and Columbus, provides various services, including custom courseware development, CBT feasibility and cost justification studies, loaning out Goal Systems' product support, product training, and CBT authoring personnel, and inputting and formatting CBR reference material.

Goal Systems licenses its software products to customers under either permanent or fixed-term renewable licenses. Software maintenance, generally at 15% of the then-current purchase price, is also available. The company also provides telephone access for technical support and advice to its customers 24 hours a day, seven days a week.

Industry Markets

Goal Systems' revenue is derived from clients across industry sectors, including manufacturers, banks, insurance companies, other financial institutions, utilities, health care and other service businesses, educational institutions, and government agencies.

Customers range in size from small companies to large multi-national organizations.

As of January 31, 1991, approximately 28,000 copies of Goal Systems' products were licensed worldwide, with 25,000 being licensed directly to 7,100 customers and 3,000 being sublicensed through the company's distributors and value-added remarketers.

Geographic Markets

Approximately 64% of Goal Systems' fiscal 1991 revenue was derived from North America and 36% from international sources, primarily Europe.

A three-year summary of geographic source of revenue follows:

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GOAL SYSTEMS INTERNATIONAL INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1/91		1/90		1/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
North America	$75.4	64%	$61.1	71%	$42.8	70%
International	41.6	36%	25.3	29%	18.2	30%
TOTAL	**$117.0**	**100%**	**$86.4**	**100%**	**$61.0**	**100%**

Goal Systems has U.S. regional sales offices located in Atlanta, Boston, Chicago, Cincinnati, Cleveland, Columbus (OH), Costa Mesa (CA), Dallas, Jersey City (NY), Mentor (OH), Purchase (NY), San Francisco, Seattle, Washington, D.C., and Woodland Hills (CA).

International subsidiaries/offices are located in England, France, Germany, Italy, the Netherlands, Australia, and Belgium.

- Goal Systems is also represented through distributors or agents in certain other parts of the world, including Canada, Spain, South Africa, Japan, South America, and the Far East.
- In early fiscal 1991, Goal Systems signed a distribution agreement with Total Integration Systems Co., Ltd. of Tokyo for the rights to market Goal Systems' products in Japan.
- Goal Systems management expects that sales from markets outside North America will eventually represent 40% of total revenue.

Computer Hardware and Software

Goal Systems maintains one IBM 3090-180E operating under MVS/XA, VM/XA, DOS/VSE at its Columbus headquarters.

The company also has a data center in Dallas with an IBM 4381 installed.

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GOAL SYSTEMS INTERNATIONAL INC.
Goal Systems Building
7965 N. High Street
Columbus, OH 43235
(614) 888-1775

James A. Rutherford, Chairman
David C. Wetmore, President and CEO
Public Corporation, NASDAQ
Total Employees: 561 (1/90)
Total Revenue, Fiscal Year End
1/31/90: $69,226,000
(Restated: $86,600,000)

The Company

Goal Systems International Inc., founded in 1975 and incorporated in 1977, markets and supports a range of MVS, VM, and VSE data center management systems software products. The company also provides computer-based training (CBT) and computer-based reference (CBR) products and associated professional services.

In May 1989, Goal Systems completed an initial public offering of $2.9 million shares of its common stock, of which 1.8 million shares were sold by the company and 1.1 million by selling shareholders. Net proceeds to the company from the sale were approximately $16.1 million.

Subsequent to the end of fiscal 1990, Goal Systems made the following acquisitions:

- In February 1990, Goal Systems acquired Essential Software of Los Angeles (CA) for 1.5 million shares of Goal common stock plus $106,899 in cash. The acquisition was accounted for as a pooling of interests.
  - Essential Software was a mainframe software firm that specialized in automated report distribution and disaster recovery systems used on the MVS operating system. Its product line has been merged into Goal Systems Data Center Management Division.
- In February 1990, Goal Systems also acquired Tower Control Group of Costa Mesa (CA) for $6.9 million plus contingent payments based on revenues generated by certain acquired products. The acquisition was accounted for as a purchase.
  - Tower was a mainframe software company specializing in automated tape and disk management systems for the VSE and VM operating systems.

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- Tower's product line has been merged into Goal Systems' Data Center Management Division.

- In April 1990, Goal Systems acquired MVS Software, Inc. of Los Angeles (CA) for over 1.8 million shares of Goal common stock plus $1.7 million in cash. The acquisition was accounted for as a pooling of interests.

  - MVS was a mainframe software company that specialized in OPS/MVS, an automated system operations software product for the MVS operating system.

As a result of the pooling-of-interests acquisitions described above, Goal Systems has restated its financials. Restated fiscal 1990 revenue was $86.6 million, a 42% increase over fiscal 1989 revenue of $61.0 million. Restated net income was $10.5 million in fiscal 1990, compared to $6.9 million in fiscal 1989.

In the five-year summary that follows, financials include the results of Goal Systems operations prior to the acquisitions made this year.

GOAL SYSTEMS INTERNATIONAL INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR					
ITEM	1/90	1/89	1/88	1/87	1/86	CAGR
Revenue	$69.2	$52.2	$40.4	$29.2	$17.6	41%
• Percent increase from previous year	33%	29%	38%	67%	32%	
Income before taxes	$16.4	$12.6	$9.9	$7.2	$4.0	42%
• Percent increase (decrease) from previous year	30%	28%	38%	77%	(8%)	
• Gross margin	24%	24%	24%	24%	23%	
Net income	$10.8	$8.0	$5.9	$3.9	$2.6	43%
• Percent increase (decrease) from previous year	35%	34%	52%	49%	(8%)	
• Net margin	16%	15%	15%	13%	15%	
Earnings per share	$0.71	$0.60	$0.47	$0.33	$0.25	30%
• Percent increase from previous year	18%	28%	42%	32%	N/A	

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During fiscal 1989, Goal Systems divested its line of application development software products and discontinued conducting educational seminars, which, in the aggregate, contributed revenue of $1.8 million in fiscal 1989 and $3.1 million in fiscal 1988. Exclusive of these products and services, the company's total fiscal 1990 revenue grew over 37% over fiscal 1989.

Goal Systems' management attributes growth in revenue and net income to an expanding line of software products, as well as to an expansion of sales and marketing capabilities in North America and Europe.

- License revenue from new product installations increased by approximately 40% to $39.1 million in fiscal 1990.
- Fiscal 1990 revenue growth from the data center management product line includes an increase of approximately 60% from North America, with a 73% increase in new license revenue.
- Growth in CBT product revenue slowed in fiscal 1990 due to a management change in the U.S. and to less than expected revenue from the introduction of CBT products in non-English-speaking countries.
- Goal Systems currently has over 23,000 product installations worldwide, compared to 19,000 installations a year ago.

Earlier acquisitions made by Goal Systems include the following:

- In May 1989, Goal Systems acquired DataBase Utility Group (DBUG) of Seattle (WA) for cash payments totaling $6.9 million through fiscal 1992, plus contingent payments based revenue generated from one of DBUG's acquired products. DBUG developed INSIGHT/DB2, a performance monitor for DB2.
- In February 1989, Goal Systems acquired Electronic Learning Systems, Inc. (ELS), a developer of CBT courseware primarily for use by the banking and financial services industries. ELS also provided custom courseware development and consulting professional services to assist users of CBT products.

Revenue for the six months ending July 31, 1990 reached $49.3 million, a 37% increase over $35.9 million for the same period in 1989. Net losses for the period of $100,000 include a one-time charge of $5.1 million for merger and related acquisition expenses. Financials for previous periods have been restated to reflect the pooling-of-interests acquisitions made earlier this year.

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Goal Systems is currently organized into two divisions and five international subsidiaries.

- The Data Center Management (DCM) Division develops, markets, and supports the company's data management systems software products for automated systems operations, storage management, resource optimization, and systems assurance.
- The Information Technology Division (ITD) provides CBT and CBR systems, as well as CBT courseware and professional services designed to enhance employee productivity.
- Goal Systems International Ltd., headquartered in Hertfordshire (England), markets and supports the company's products in the U.K., Ireland, and The Netherlands.
- Goal Systems International GmbH, located in Frankfurt (West Germany), markets the company's products in West Germany, Switzerland, and Austria.
- Goal Systems International S.A.R.L., located in Paris (France), markets the company's products in France and Belgium.
- Goal Systems International S.R.L., located in Milan (Italy), markets the company's products in Italy.
- Goal Systems International PTY Limited, located in Sydney (Australia), markets the company's products in Australia.

In January 1990, Goal Systems had 561 employees (437 U.S. and 124 international). The company currently has approximately 900 employees, including personnel from the three businesses acquired since the end of fiscal 1990.

Competitors for Goal Systems' DCM products include IBM, Computer Associates International, and LEGENT Corporation. In the CBT product area, the primary competitor is Applied Learning.

Key Products and Services

A three-year summary of source of revenue follows:

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GOAL SYSTEMS INTERNATIONAL, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1/90		1/89		1/88	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Software licenses	$52.3	76%	$41.6	80%	$31.0	77%
Maintenance	12.6	18%	7.7	14%	5.8	14%
Professional services	1.5	2%	0.9	2%	2.2	6%
Finance charges	2.8	4%	2.0	4%	1.4	3%
TOTAL	**$69.2**	**100%**	**$52.2**	**100%**	**$40.4**	**100%**

A three-year summary of source of revenue by product/service line follows:

	FISCAL YEAR		
ITEM	1/90	1/89	1/88
DCM products	72%	64%	61%
ITD products	28%	33%	31%
Other (a)	--	3%	8%
TOTAL	**100%**	**100%**	**100%**

(a) Includes products/services divested during fiscal 1989.

Goal Systems' current product offerings are summarized in the exhibit.

The company's data center management systems software products run on IBM and compatible mainframes in MVS, VM, and VSE environments and support the following functions:

- Production control
- Storage management products for VSAM
- Performance monitoring
- Security

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EXHIBIT

GOAL SYSTEMS INTERNATIONAL SOFTWARE PRODUCTS

PRODUCTS	DESCRIPTION	NUMBER INSTALLED	OPERATING ENVIRONMENT
Automated Systems Operations Products			
- JOBTRAC	Job scheduling system	N/A	MVS
- FAQS	Operations enhancement	2,200	MVS, VSE, VM
- FAQS/PCS	Job scheduling management	N/A	VSE
- PDSMAN	Program library control	1,200	MVS
- FLEE	Program library control	1,000	VSE
- EXTEND	Lock file replacement	150	VSE
- ACCESS	VM/CMS file sharing	100	VM
- OPS/MVS	Console message manager	N/A	MVS
- EXPRESS DELIVERY	Report distribution and tracking	N/A	MVS
- SAR	Sysout archival and retrieval	N/A	MVS
Storage Management Products			
- FAVER	VSAM backup/restore system	4,990	MVS, VSE
- VSAMAID	VSAM performance monitor	700	MVS, VSE
- MASTERCAT	Catalog navigation aid	250	MVS, VSE
- COMPRESSOR	DASD data compressor	150	MVS, VSE
- HYBER-BUF	Allocation expert for I/O buffers	50	MVS, VSE
- EPIC	Tape and disk management	N/A	MVS, VSE
Resource Optimization Products			
- EXPLORE	Performance monitor	1,600	VM, VSE
- EXPLORE/CICS	Performance monitor		MVS, VSE
- INSIGHT/DB2	Performance monitor for DB/2	N/A	MVS
- APAS SOLUTION	Performance monitor for ADABAS	N/A	MVS, VSE
Security Products			
- ALERT	Data security management	450	CICS, MVS, VSE, VM
- ARISE II	Automated disaster recovery	N/A	MVS
Information Technology Products			
- PHOENIX	Computer-based training system	2,900	MVS, VM
- PHOENIX/MICRO	Computer-based training system	250	PC
- PHOENIX Courseware	Computer courseware	N/A	MVS, VM, PC
- PREFERENCE	Computer-based reference system	54	MVS, VM

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The Information Technology Division offers the following products and services:

- The PHOENIX System is a CBT software system that permits authoring of instructional courses on any subject for subsequent presentation at any terminal in a mainframe's network. The system also supports student progress and course status recordkeeping and reporting. The system is used primarily by large organizations that have a need to provide standardized training to large numbers of personnel in multiple locations. The PHOENIX System licenses for $60,200.

  - PHOENIX Presentation System, a subsystem of the PHOENIX System, allows customers to present, but not author, CBT courses developed by Goal Systems or others. The system licenses for $13,500.

  - PHOENIX-VAR consists of special versions of the PHOENIX Presentation System designed to present only CBT courses marketed by third-party vendors, such as Applied Learning International.

- PHOENIX/Micro System permits CBT course to be authored and presented on standalone or networked IBM or compatible microcomputers. The system licenses for $20,000 in North America.

- Goal Systems' PHOENIX Courseware Group offers a library of over 40 standard CBT courses for mainframes and microcomputers. Mainframe products range in price from $3,000 to $18,000.

- PREFERENCE, introduced in 1988, is a computer-based reference software product that permits management of, and access to, reference material and other documentation within an IBM mainframe environment. PREFERENCE licenses for $85,000.

- Professional services provided by ITD include developing custom courseware, performing CBT feasibility and cost justification studies, loaning out Goal Systems' product support, product training, and CBT authoring personnel; and inputting and formatting CBR reference material.

Goal Systems licenses its software products to customers under either permanent or fixed-term renewable licenses. Software maintenance, generally at 15% of the then-current purchase price,

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is also available. The company also provides telephone access for technical support and advice to its customers 24 hours a day, seven days a week.

Industry Markets

Goal Systems' revenue is derived from clients across industry sectors, including manufacturers, banks, insurance companies, other financial institutions, utilities, health care and other service businesses, educational institutions, and government agencies.

Customers range in size from small companies to large multi-national organizations. Approximately 73% of the Fortune 500 industrial corporations and 69% of the Fortune 500 service corporations are customers of Goal Systems.

Geographic Markets

Over 65% of Goal Systems' fiscal 1990 revenue was derived from the U.S. and 35% from international sources, primarily Europe.

A three-year summary of source of revenue (prior to restatement) follows:

GOAL SYSTEMS INTERNATIONAL INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1/90		1/89		1/88	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
North America	$45.8	66%	$35.4	68%	$27.0	67%
Foreign	23.4	34%	16.8	32%	13.4	33%
TOTAL	**$69.2**	**100%**	**$52.2**	**100%**	**$40.4**	**100%**

Goal Systems has U.S. regional sales offices located in Atlanta, Boston, Chicago, Columbus (OH), Dallas, Kalamazoo (MI), Los Angeles and San Francisco (CA), and Washington, D.C.

- Goal Systems ITD Professional Services Group is based in Dallas.

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- Additional offices are located in Houston, Seattle, and Los Angeles (2).

International subsidiaries/offices are located in England, France, West Germany, Italy, and Australia.

- Goal Systems is also represented through distributors or agents in Canada, Spain, Scandinavia, Saudi Arabia, Israel, and Japan (for data center management products) and Denmark, Sweden, and Japan (for Information Technology products).
- In early fiscal 1991, Goal Systems signed a distribution agreement with Total Integration Systems Co., Ltd. of Tokyo for the rights to market Goal Systems' products in Japan.
- Goal Systems management expects that sales from markets outside North America will eventually represent 40% of total revenue.

Computer Hardware and Software

Goal Systems maintains one IBM 3090-180E operating under MVS/XA, VM/XA, DOS/VSE at its Columbus headquarters.

The company also has a data center in Dallas with an IBM 4381 installed.

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GOAL SYSTEMS INTERNATIONAL INC.
Goal Systems Building
7965 N. High Street
Columbus, OH 43235
(614) 888-1775

James A. Rutherford, Chairman and CEO
Private Corporation
Total Employees: 321
Total Revenue, Fiscal Year End 1/31/88: $40,376,000

The Company

Goal Systems International Inc., founded in 1975 and incorporated in 1977, markets and supports a range of VM, MVS, and VSE data management systems software products for VSAM management, performance monitoring, systems management, application development, and security functions. The company also provides software products and systems development professional services for computer-based training (CBT).

Revenue for fiscal 1988 reached $40.4 million, a 38% increase over fiscal 1987 revenue of $29.2 million. Net income rose 52%, from $3.9 million in fiscal 1987 to $5.9 million in fiscal 1988. A five-year financial summary follows:

GOAL SYSTEMS INTERNATIONAL INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands)

	FISCAL YEAR				
ITEM	1/88	1/87	1/86	1/85	1/84
Revenue	$40,376	$29,231	$17,553	$13,295	$10,197
• Percent increase from previous year	38%	67%	32%	30%	108%
Income before taxes	$9,850	$7,154	$4,045	$4,382	$3,495
• Percent increase (decrease) from previous year	38%	77%	(8%)	25%	*
Net income	$5,920	$3,892	$2,607	$2,844	$2,209
• Percent increase (decrease) from previous year	52%	49%	(8%)	29%	967%

* *Percent change exceeds 1,000%.*

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Goal Systems' management attributes growth in revenue and net income to an expanding line of software products, as well as an expansion of sales and marketing capabilities in North America and Europe.

- During fiscal 1988 significant investments were made in sales and marketing. The size of the sales force was nearly doubled and additional regional offices were established.
- During fiscal 1988 European revenue grew 108% and domestic revenue grew 18%. Goal Systems' European operations now comprise one-third of the company's business.
- Goal Systems currently has over 17,000 product installations worldwide, compared to 14,000 installations a year ago.
- Goal Systems' management anticipates fiscal 1989 revenue will reach nearly $55 million, a 36% increase over fiscal 1988 revenue.

Research and development expenditures were approximately $5.7 million (14% of revenue) in fiscal 1988, $5.3 million (18% of revenue) in fiscal 1987, and $4.2 million (24% of revenue) in fiscal 1986.

In September 1988, Goal Systems sold its application development software product line to Sterling Software. The products included CLASSIC/AL, QUIKJOB, and QUIKWRITE.

Goal Systems is currently organized into two divisions and three international subsidiaries as follows:

- The Data Center Management Division develops, markets, and supports the company's data management systems software products.
- The Information Technology Division provides CBT software and courseware and software development professional services and computer-based reference software.
- Goal Systems International Ltd., headquartered in Hertfordshire (England), markets and supports the company's products in the U.K., Ireland, and The Netherlands.
- Goal Systems International GmbH, located in Frankfurt (West Germany), markets the company's products in West Germany, Switzerland, and Austria.

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- Goal Systems International S.A.R.L., located in Paris (France), markets the company's products in France and Belgium.

In January 1988, Goal Systems had 321 employees (259 U.S. and 62 international). There are currently 372 employees, segmented as follows:

Marketing/sales	144
Product development	59
Product support	4
Technical support	65
General and administrative	100
	372

Competitors include Computer Associates International, Pansophic Systems, Innovative Data Processing, and Applied Data Research.

Key Products and Services

Approximately 70% of Goal Systems' fiscal 1988 revenue was derived from systems software products and associated support services. The remaining 30% of revenue was derived from CBT software and associated support services.

Goal Systems' data management systems software products (listed in the exhibit) run on IBM and compatible mainframes and support the following functions:

- VSAM management.
- Performance monitoring.
- System management.
- Security.

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EXHIBIT

GOAL SYSTEMS INTERNATIONAL SOFTWARE PRODUCTS

PRODUCTS	DESCRIPTION	NUMBER INSTALLED	OPERATING ENVIRONMENT
VSAM Products			
- FAVER	VSAM backup/restore system.	3,550	MVS, VSE
- VAID	VSAM performance monitor.	700	MVS, VSE
- MCAT	Catalog navigation aid.	250	MVS, VSE
- COMPO	DASD data compressor.	150	MVS
- HBUF	Allocation expert for I/O buffers.	50	MVS, VSE
Performance Products			
- EXPLORE	Performance measurement tool.	1,150	CICS, MVS, VSE, VM
Systems Management Products			
- FAQS	Operations enhancement.	2,000	MVS, VSE, VM
- PDSM	Program library control.	1,000	MVS
- ACCESS	VM/CMS file sharing.	100	VM
- FLEE	Program library control.	1,000	VSE
- EXTEND	Lock file replacement.	150	VSE
- JCLMAN	Job management system.	100	VSE
Security Products			
- ALERT	Data security management.	450	CICS, MVS, VSE, VM
Information Technology Products			
- PHOENIX	Computer-based training system.	1,000	MVS, VM
- PHOENIX/MICRO	Computer-based training system.	250	PC
- PHOENIX COURSES	Computer courseware.	1,550	MVS, VM
- PHOENIX MICROCOURSES	Computer courseware.	150	PC
- PREFERENCE	Computer-based reference system.	50	MVS, VM

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The Information Technology Division offers the following products and services:

- The PHOENIX System, developed at Ohio State University and acquired by Goal Systems in 1978 and released in 1980, is a CBT applications development tool that enables users to develop the basic framework for instructional courses.
  - The PHOENIX System is available for mainframes and microcomputers. Over 1,000 systems have been licensed.
- Goal Systems' PHOENIX Courseware Group offers a library of over 40 computer-based training courses for mainframes and microcomputers. Approximately 16 new course titles were introduced during fiscal 1988.
- Goal Systems also provides customization services using the PHOENIX System.
- PREFERENCE, introduced in 1988, is a computer-based reference software product for IBM and compatible mainframes.
  - The product provides direct access to corporate resources, such as on-line applications documentation, employee handbooks, and customer service references.
  - PREFERENCE users can define multiple methods to access information, including hierarchial lists through tables of contents, user-defined indices, or a concurrent approach with windows, pages, or screens.
  - PREFERENCE is priced at $70,000.

Customer support for software packages includes a hotline service available from 8 a.m. to 10 p.m. (EST). All documentation, updates, and maintenance releases are also provided.

Industry Markets

Goal Systems' fiscal 1988 revenue was derived from clients across industry sectors, including manufacturing, retail, insurance, transportation, energy, utilities, banking, education, medical, and state and federal government.

Customers range in size from small companies to large multi-national organizations.

North American clients include: Chrysler Corporation, E.I.

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DuPont de Nemours, General Dynamics, General Mills, General Motors, Goodyear Tire & Rubber, Westinghouse, F.W. Woolworth, Home Box Office, Macy's, May Company, Blue Cross - New Jersey, Cigna Corporation, Connecticut General, Fireman's Fund, Northwestern Mutual Life, Air Canada, Burlington Northern Railroad, Missouri-Pacific Railroad, Alyeska Pipeline, British Petroleum, Mobil Oil, Standard Oil of Ohio, The Defense Logistics Agency, the State of Tennessee, the U.S. Army, the U.S. Marine Corps, AT&T Technologies, Columbia Gas Company, MCI Telecommunications, Pacific Power & Light, Southern California Gas, Bank of America, Citicorp, Mellon Bank, Northern Carolina National Bank, Wachovia Bank and Trust, University of Kansas, University of Michigan, University of Texas, Youngstown State University, Henry Ford Hospital, Humana, Inc. and John Hopkins Hospital.

European clients include: Barclays, British Airways, British Telecom, Commercial Union, Ford, ICI, Jaquar Cars, Manufacturers Hanover Trust, Memorex, Philips, Rolls Royce, Automobile Peugeot, Automobile Renault, Bouygues, Dassault, Esso, L'Oreal, Banca D'Italia, Fiat, Olivetti, RAI, Banco de Bilbao, Gas Y Electricidad, and Shell.

Geographic Markets

Approximately 67% of Goal Systems' fiscal 1988 revenue was derived from the U.S. and 33% from Europe.

A three-year summary of source of revenue follows:

GOAL SYSTEMS INTERNATIONAL INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ thousands)

	FISCAL YEAR					
	1/88		1/87		1/86	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$27,015	67%	$22,785	78%	$16,003	91%
Europe	13,361	33%	6,446	22%	1,550	9%
TOTAL	**$40,376**	**100%**	**$29,231**	**100%**	**$17,553**	**100%**

Goal Systems has U.S. regional sales offices located in Atlanta, Boston, Cherry Hill (NJ), Chicago, Columbus (OH), Dallas,

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Kalamazoo (MI), Los Angeles and San Francisco (CA), White Plains (NY), and Washington, D.C.

Foreign offices are located in England, France, and West Germany.

Goal Systems is also represented through distributors or agents in Canada, Spain, Italy, Scandinavia, Saudi Arabia, Israel, and Australia (for data center management products) and Denmark, Sweden, and Australia (for Information Technology products).

Computer Hardware and Software

Goal Systems maintains one IBM 3090-180E operating under MVS/XA, VM/XA, DOS/VSE at its Columbus headquaters.

The company also has a data center in Dallas with an IBM 4381 installed.

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GOAL SYSTEMS INTERNATIONAL INC.
Goal Systems Building
5455 North High Street
Columbus, OH 43214
(614) 888-1775

Steve O'Donnell, Chairman
Jim Rutherford, President
Private Corporation
Total Employees: 275
Total Revenue, Fiscal Year End 1/31/87: $29,231,000

THE COMPANY

- Goal Systems International Inc., founded in 1975 by Steve O'Donnell and incorporated in 1977, markets and supports a range of VM, MVS, and VSE software products for application development, security management, systems control, data center management, and computer-based training (CBT). Goal Systems also provides professional services involving the development of custom courseware for computer-based training applications.

- Revenue for fiscal 1987 was $29.2 million, a 67% increase over fiscal 1986 revenue of $17.6 million. Net income rose 49% from $2.6 million in fiscal 1986 to $3.9 million in fiscal 1987. A five-year financial summary follows:

GOAL SYSTEMS INTERNATIONAL INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	1/87	1/86	1/85	1/84	1/83
Revenue	$29,231	$17,553	$13,295	$10,197	$4,907
. Percent increase from previous year	67%	32%	30%	108%	53%
Income before taxes	$ 7,154	$ 4,045	$ 4,382	$ 3,495	$ 266
. Percent increase (decrease) from previous year	77%	(8%)	25%	1,314%	582%
Net income	$ 3,892	$ 2,607	$ 2,844	$ 2,209	$ 207
. Percent increase (decrease) from previous year	49%	(8%)	29%	967%	(22%)

- Goal Systems' management attributes growth in revenue and net income to an expanding line of software products in the MVS and VM markets, as well as significant growth in the CBT market segment.

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- In November 1985, Goal Systems acquired System Support Software Company (SSSC). Terms of the acquisition were not disclosed.
  - SSSC, headquartered in Dayton (OH), provided services for the data processing industry and marketed the QUIKJOB product line.
  - The company had approximately 18 employees at the time of the acquisition. Its operations have been merged into Goal Systems.
- Goal Systems currently has three foreign subsidiaries that are responsible for marketing and distributing the company's products, directly and through distributors, throughout Europe and the Middle East.
  - Goal Systems Ltd. is located in Herfordshire, England, and has 19 employees.
  - Goal Systems GmbH, located in Frankfurt, West Germany, has 21 employees and markets the company's products in Europe.
  - Goal Systems S.A.R.L., located in Paris, France, has 20 employees.
- In addition Goal Systems has an independent distributor and an agent as follows:
  - Goal Systems Australia Pty. Ltd., located in Chatswood, is the exclusive distributor for Goal Systems' products in Australia and New Zealand.
  - Goal Systems Canada, located in Richmond Hill, Ontario, markets the company's products in Canada.
- In January 1987, Goal Systems had 275 employees. There are currently 303 employees, segmented as follows:

Marketing/sales	98
Product development	57
Product support	8
Technical support	51
General and administrative	89
	303

- Competitors include Computer Associates International, Pansophic Systems, Innovative Data Processing, and Applied Data Research.

KEY PRODUCTS AND SERVICES

- One hundred percent of Goal System's fiscal 1987 revenue was derived from the sale of software packages and related services.

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- Goal Systems' software products are on-line and run on IBM and compatible mainframes.

- Over 14,000 products are installed worldwide.

- Goal Systems' products are divided into four strategic product groups: System Management Utilities, Application Development Systems, Computer Security, and Computer-Based Training. A list of available software products is provided in the exhibit.

  - The company's primary product, PHOENIX, generated 25% of fiscal 1987 total revenue. PHOENIX, developed at Ohio State University and acquired by Goal Systems in 1978 and released in 1980, is a computer-based training (CBT) applications development tool that enables users to develop the basic framework for instructional courses.

  - Goal Systems also provides customization services using PHOENIX.

- Customer support for software packages includes a hotline service available from 8 a.m. to 10 p.m. (EST). All documentation updates, and maintenance releases are also provided.

INDUSTRY MARKETS

- Goal Systems' fiscal 1987 revenue was derived from across industry sectors.

- Clients include R. J. Reynolds Tobacco Company, Manufacturers Hanover Trust Company, Mobil Oil Corporation, and Electronic Data Systems Corporation.

GEOGRAPHIC MARKETS

- An estimated 79% of Goal Systems' 1987 revenue was derived from the U.S. and Canada and 21% was from foreign markets.

- Goal Systems has eight U.S. branch sales offices located in Atlanta, Cherry Hill (NJ), Dallas, Dayton (OH), Los Angeles, Chicago, West Hartford (CT), and White Plains (NY).

COMPUTER HARDWARE AND SOFTWARE

- Goal Systems maintains one IBM 4381-2 operating under MVS, VM, CMS, DOS/VSE at its Columbus headquarters.

- The company also has data centers in Dallas, Dayton, and London with three computers installed.

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EXHIBIT

GOAL SYSTEMS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	NUMBER INSTALLED	CPU REQUIREMENTS (Operating System)
SYSTEM MANAGEMENT UTILITIES			
EXPLORE/CICS	Performance measurement tool	150	VSE, MVS
EXPLORE/VSE	Peformance measurement tool	400	VSE
EXPLORE/VM	Performance measurement tool	500	VM
FAQS/VSE	Operations enhancement	1,800	VSE
FAQS/VM	Operations enhancement	100	VM
FAQS/MVS	Operations enhancement	75	MVS
FAVER/VSE	VSAM backup/restore system	1,000	VSE
FAVER/MVS	VSAM backup/restore system	900	MVS
FLEE/VSE	Program library control	1,000	VSE
ACCESS/VM	VM/CMS file sharing	100	VM
JCLMAN/VSE	Job management system	100	VSE
PDSMAN/MVS	Program library control	700	MVS
MASTERCAT	VSAM catalog display	75	VSE, MVS
VSAMAID/VSE	VSAM performance monitor	300	VSE
VSAMAID/MVS	VSAM performance monitor	250	MVS
APPLICATION DEVELOPMENT SYSTEMS			
Quikjob	Data/file management and report writing system	N/A	DOS/VSE, OS/VSE, VM/CMS
CLASSIC/AL	Complete on-line application development system	10	MVS, VSE
Quikwrite	Information retreival, processing and reporting system	N/A	DOS/VSE, MVS, OS/VSE
COMPUTER SECURITY			
ALERT/CICS	CICS security management	200	VSE, MVS
ALERT/VSE	Data set security management	75	VSE
ALERT/VM	Data set security management	10	VM
ALERT/MVS	Data set security management	40	MVS
COMPUTER-BASED TRAINING			
PHOENIX	Computer-based training	800	MVS, VM

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FINANCIAL UPDATE TO PROFILE DATED OCTOBER 1983

GOAL SYSTEMS INTERNATIONAL INC.
Goal Systems Building
5455 North High Street
Columbus, OH 43214-1193
(614) 888-1775

Steve R. O'Donnell, Chairman
James A. Rutherford, President and CEO
Private Corporation
Total Employees: 130
Total Revenue, Fiscal Year End 1/31/85: $13,547,000

GOAL SYSTEMS INTERNATIONAL INC.
FOUR-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	1/85	1/84	1/83	1/82
Revenue	$ 13,547	$ 10,232	$ 4,999	$ 3,211
. Percent increase from previous year	32%	105%	56%	55%
Income before taxes	$ 4,382	$ 3,495	$ 266	$ 306
. Percent increase (decrease) from previous year	25%	1,214%	(13%)	856%
Net income	$ 2,844	$ 2,209	$ 207	$ 267
. Percent increase (decrease) from previous year	29%	967%	(22%)	N/A

SOURCE OF REVENUE

- One hundred percent of Goal Systems' fiscal 1985 revenue was derived from systems software provided through three product groups: System Management Utilities, Computer Security, and Computer-based Training applications development.

NEW PRODUCT INTRODUCTIONS

- In April 1984 Goal Systems announced the addition of the ALERT/CICS™ software product to its line of ALERT™ computer security software. The system provides security capabilities for IBM mainframe installations using the CICS teleprocessing system and allows for user defined security structures necessary for each area of the network. The system is priced at $9,100 for a permanent license fee, or $228 per month for a three-year license, for

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DOS/VSE. For MVS the permanent license fee is $12,180 or $305 per month for a three-year license.

- In June 1984 the EXPLORE/VM™ was announced as an addition to the XP product series of Goal Systems' Systems Management Utilities product group. The system is a performance and resource monitor for IBM's VM operating system that can be customized by using IBM's CMS EXEC, EXEC2, and REXX languages, and provides both realtime and batch facilities. The system is priced at $5,600 for a permanent license fee or $140 per month for a three-year renewable license.

- In August 1984, the PHOENIX/Micro™ System was released. This system allows computer-based training courses authored on the PHOENIX™ System to be played on the IBM PC without a host mainframe computer. Student recordkeeping is included in the system. Licensing agreements are available under a variety of pricing structures allowing users unlimited use of the system throughout their organization without purchasing multiple copies.

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GOAL SYSTEMS INTERNATIONAL INC.
Goal Systems Building
5455 North High Street
Columbus, OH 43214
(614) 888-1775

Steve O'Donnell, President
Private Corporation
Total Employees: 64
Total Revenue, Fiscal Year End
1/31/83: $6,000,000

THE COMPANY

- Goal Systems International Inc., founded in 1975 by Steve O'Donnell and incorporated in 1977, primarily markets systems control and data center management systems software products. Goal also markets an applications development package for computer-based training. The company recently began providing professional services.

- Revenue for fiscal 1983 was $6 million, a 67% increase over 1982 revenue of $3.6 million. A five-year revenue summary follows:

GOAL SYSTEMS INTERNATIONAL INC.
FIVE-YEAR REVENUE SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	1/83	1/82	1/81	1/80	1/79
Revenue	$6,000	$3,600	$3,380	$2,200	$1,500
. Percent increase from previous year	67%	7%	54%	47%	98%

- Goal Systems has two foreign subsidiaries:

  - Goal Systems Australia Pty. Ltd., located in Carlingford, Australia, has four employees and was responsible for the development of Goal's PDSMAN/XP software product. The subsidiary continues to develop systems software and is the exclusive distributor of Goal Systems' products in Australia and New Zealand.

  - Goal Systems Canada, located in Unionville, Ontario, has one employee and markets the company's products in Canada.

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- In January 1983 Goal Systems had 64 employees. There are currently 79 employees, segmented as follows:

Marketing/sales	25
Product development	8
Product support	12
Technical support	9
General and administrative	25
	79

- Competitors include Computer Associates International, Pansophic Systems, Innovative Data Processing, and Applied Data Research.

KEY PRODUCTS AND SERVICES

- One hundred percent of Goal Systems' fiscal 1983 revenue was derived from systems software packages, of which 20% was from the company's computer-based training applications development software package, PHOENIX.

  - Goal's software products are on-line and run on IBM 370, 33XX, 43XX, and compatible mainframes under DOS/VSE, OS/VS, VM, MVS, and VSI.

  - There are over 6,000 installations of the company's software products, a listing of which is provided in the exhibit.

- In March 1983 Goal introduced the EXTENDED PRODUCTIVITY (XP) SYSTEM, an integrated product line emphasizing increased computer efficiency and data processing staff productivity.

  - The products are primarily for use with DOS/VSE or OS/VS and can be configured for VM, MVS, and VSI.

  - XP SYSTEM products for DOS/VSE include FLEE/XP, FAQS/XP, FAVER/XP, JCLMAN/XP, EXPLORE/XP, and VSAMAID/XP. Included for OS/VS are FAVER/XP, PDSMAN/XP, and VSAMAID/XP.

- The company's primary software products include the following:

  - FAQS/XP, released in 1978, is an operational control and multiple console support tool. System features simplify operations, provide flexibility, reduce costs, and increase productivity. Any CICS, WESTI, VM/CMS, SHADOW, or ICCF terminal can be used as a system console.

    . Features include:

      - A console display function that displays current and past console activity. The display application minimizes disk and CPU resource usage through the use of chained disk I/O operations.

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EXHIBIT

GOAL SYSTEMS INTERNATIONAL SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	PRICE	NUMBER INSTALLED	CPU REQUIREMENTS (Operating System)
EXTENDED PRODUCTIVITY (XP) SYSTEM				
EXPLORE/XP	Performance monitor providing DASD and CPU performance information.	$ 5,600	100	All products run on IBM 370, 33XX, 43XX, and compatible mainframes under the listed operating systems. DOS/VSE, VM, MVS, VSI.
FAQS/XP	Operational control and multiple console support tool.	$ 4,760	1,500	DOS/VSE, VM, MVS, VSI.
FAVER/XP	VSAM backup/restore utility. OS/VS version DOS/VSE version	 $ 5,040 $ 3,080	400	OS/VS, DOS/VSE, VM, MVS, VSI.
FLEE/XP	Library management tool.	$ 5,040	1,000	DOS/VSE, VM, MVS, VSI.
JCLMAN/XP	Job control system.	$ 5,600	200	DOS/VSE, VM, MVS, VSI.
PDSMAN/XP	Library member update and access control tool.	$ 8,960	100	OS/VS, VM, MVS, VSI.
VFBA/XP	Converts data files from Count Key Data to Fixed Block Architecture.	$ 7,000	100	OS/VS, DOS/VSE, VM, MVS, VSI.
VSAMAID/XP	VSAM performance monitor. OS/VS version DOS/VSE version	 $ 5,040 $ 3,080	NEW	OS/VS, DOS/VSE, VM, MVS, VSI.
Applications Development				
PHOENIX	Computer-based training applications development tool.	$35,000	300	OS/VS, VM, MVS, VSI.

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- A Multiple Console support facility that enables DOS/VSE operator commands and replies to be entered directly from the FAQS/XP application.

- A tape/disk volume display that lists all active disk and tape drives along with the volume mounted on each drive.

- A storage alter/display facility that enables authorized users to page through storage.

- A console spooling feature that provides many DOS/VSE console-related facilities including a job-related, time-stamped summary of console activity and complete program function key support.

- The ability to archive console activity to a cumulative history tape.

- Partition balancing, which balances multiple sets of partitions and prevents system degradation due to inefficient job mixes.

- Programming aids such as VTOC, DASD, and MAP displays that provide programmers with displays of VTOC entries of a device in a sorted or unsorted order, disk records, and system and partition GETVIS allocations/usage.

. FAQS/XP reduces costs by cutting I/O completion time, sorting channel queues by user-defined priority sequences, and decreasing the duration of print-bound jobs.

- FAVER/XP, released in 1979, is a VSAM backup/restore utility package. Features include:

. The ability to back up and restore all clusters defined in a catalog with less than 15 cards.

. Simplification of VSAM or DL/I file migration through automatic reallocation of file space on the new DASD as the cluster is restored.

. Restoration of files EXPORTED on DOS/VSE systems on OS/VS through use of the OS/VS version of FAVER/XP.

. A file integrity feature that performs error analysis of all critical catalog and cluster information.

. A Quick Catalog utility (QUICAT) that displays catalog information in batch or interactive modes through TSO, ICCF, or FAQS/XP.

. Time stamps of most recent updates.

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- FLEE/XP, Goal Systems' first product formerly known as FLEE/FLIM/FLIC, was released in 1975. It is a library management tool replacement for IBM's LINKEDT, MAINT, and CORGZ utility programs.

  . FLEE/XP allows partitions to link, edit, delete, catalog, rename, merge, and condense any library without restrictions. It also provides three facilities for library security.

  . Features include:

    - Phase name reports that identify libraries where duplicate phases reside.

    - Audit trail time stamps for core image, relocatable, and procedure libraries.

    - Reuse of library space and the ability to perform library reorganizations at any time.

    - Easy manipulation of library files by systems and applications programmers.

- PHOENIX, developed at Ohio State and acquired by Goal Systems in 1978 and released in 1980, is a computer-based training (CBT) applications development tool that enables users to develop the basic framework for instructional courses.

  . The system offers two methods for writing courses:

    - EASE (Easy Authoring System for Education) is a menu-driven authoring system that permits the design of sophisticated instructional courseware by non-programmers. Features include structured full-screen editors for the development of computer-aided instruction (CAI) and computer-managed instruction (CMI) materials.

    - The PHOENIX Authoring Language is for users with programming experience and includes the Coursewriter III language as a subset.

  . PHOENIX can interface to VTAM, TCAM, BTAM, TSO, and CICS. It also supports courseware developed in-house and by Deltak for IBM's CBT system.

  . In fall of 1984 PHOENIX will be available for use on the IBM Personal Computer.

- VSAMAID/XP, Goal Systems' most recent product released in October 1983, is a VSAM performance monitor tool. There are currently 25 beta test sites of the product.

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- Customer support for software packages includes a hotline service available from 8 a.m. to 10 p.m. (EST). All documentation, updates, and maintenance releases are also provided.

- In August 1983 Goal Systems began providing professional services involving development of custom courseware and is currently working on two contracts.

INDUSTRY MARKETS

- Goal Systems' fiscal 1983 revenue was derived from across industry sectors.

- Clients include R. J. Reynolds Tobacco Company, Manufacturers Hanover Trust Company, Mobil Oil Corporation, and Electronic Data Systems Corporation.

GEOGRAPHIC MARKETS

- Eighty-nine percent of Goal Systems' 1983 revenue was derived from the U.S. The remaining 21% was from foreign markets including Australia, Canada, Europe, and New Zealand.

- Goal Systems has four branch sales offices located in Atlanta, Cherry Hill (NJ), Chicago, and Dallas.

- Products are marketed internationally by:

  - Goal Systems Australia Pty. Ltd., a subsidiary marketing products in Australia and New Zealand.

  - Goal Systems Canada, a subsidiary marketing products in Canada.

  - Westinghouse Management Systems S.A. of Edgware, Middlesex, England, which is the exclusive distributor of Goal Systems products in Europe.

COMPUTER HARDWARE AND SOFTWARE

- Goal Systems maintains the following equipment at its Columbus headquarters:

  - 1 IBM 370/135, VM.
  - 1 IBM 370/145, VM.
  - 1 IPL 4446,VM.

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COMPANY BRIEF

Cross Industry: Telecommunications Services

Graphic Scanning Corporation
329 Alfred Avenue
Teaneck, NJ 07666
(201) 837-5100

CEO: Steven M. Greenberg, President
Public Corporation
Founded: 1968

Employees: 950
Revenue (FYE 1985): $155.6 million

The Company:

- Graphic Scanning Corporation is involved in several communications services.
  - The company has had cellular radio, paging, mobile telephone, telephone answering services, cable television, and direct broadcasting by satellite (DBS) interests, as well as manufacturing operations.
  - The subsidiary corporation, Graphnet Inc., provides data communications and messaging services via a value-added network.
- The company has had increasing revenues, but also losses for the past three fiscal years.
  - As of September 30, 1985, it had a retained earnings deficit of $50 million.
  - The company recorded a loss of $11.9 million in the year ended June 30, 1985, despite its divestiture of cellular radio operations resulting in $22.6 million in income.
  - It had a net loss of $11.6 million for the six months ended December 31, 1985, compared with a net loss of $14.3 million the previous year.

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- Selected financial information is shown below ($ thousands):

	1985	1984	1983
Total revenue	$155,573	$124,484	$107,400
Total expenses	168,389	148,631	127,846
Net income (loss)	(11,908)	(25,296)	(20,325)

Key Products and Services:

- Graphnet, begun in 1975, optimized for switched, store and forward facsimile services which have since been expanded with a variety of real-time and store and forward services. For example:

  - The Freedom Network is a global packet switching service for messaging, supporting communications among a variety of equipment domestically, and to telex devices internationally.

  - Freedom Forward is a store and forward service supporting the E-mail Freedom Express service.

  - Freedom Express provides electronic, courier, telephone voice delivery, as well as mailboxing. Mail Manager supports high volume, time-insensitive services.

  - The company also supports telegram service, and messages can be telephoned by subscribers to a service operator using a Freedom Network Gold Card for account billing.

  - Graphnet has approximately 230 local access points.

- In addition to certain direct overseas connections for telex and leased line services, other international links use ITT World Communiations and RCA Global Communications facilities. For a time, these two companies agreed to use Graphnet's domestic networks for some overseas-originated traffic directed toward U.S. destinations.

Significant Events:

- The company's recent history has been controversial.

  - Since January 1984, the company has had a dispute with the FCC over radio paging service applications. Graphic was accused of using four smaller companies, operated by friends of Graphic's president, as fronts to win more licenses from the agency then it could on its own. With new corporate leadership, the issue is currently being resolved.

(cont'd)

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- In February 1986, citing losses and regulatory troubles, Graphic announced its intention to sell off many of its assets, with some to be purchased by then-chairman Barry Yampol, who would then leave the company.

- Graphic also said in SEC filings that it guaranteed several company executives substantial severance payments if the company is acquired or its businesses sold.

- The sale of certain assets was to finance expansion into new areas. The company said the sales would benefit shareholders who would need to approve them.

- Shortly after these plans were announced, a shareholder group holding approximately 13% of the firm announced a proxy battle to remove the company's board. In SEC filings it said it opposed any agreement to sell assets to the company's chairman, saying it was illegal and unfair to other stockholders.

- A federal lawsuit was filed to prevent company officials from what was called an illegal scheme to systematically "strip" the company of certain assets and to order that an annual meeting be held to elect new directors. That meeting was held in May 1986, and Steven M. Greenberg replaced Mr. Yampol as company president.

- Subsequently, Graphic has entered into negotiations with several firms, including SouthWest Bell Telephone, to sell its interests in cellular radio licenses in order to generate needed capital to bring the company back to profitability.

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(Jack Kern)

Phil Thurson, Director Mkt Dev

COMPANY HIGHLIGHT

GREYHOUND COMPUTER CORPORATION
Greyhound Tower
Phoenix, Arizona 85077
(602) 248-2900

Mr Swanky in Computer Services.

Olie Swanky, President
Wholly owned subsidiary of The Greyhound Corporation, a public company, widely held
Computer services employees: 800 (estimate); 450 in the USA and 350 in England
Total company sales, fiscal year end 12/76: (estimate) $56,000,000*
Computer service sales, fiscal year end 12/76: $10,000,000*

KEY PRODUCTS AND SERVICES:

- Greyhound Computer has a data services division which operates five data service centers providing batch, remote computing, facilities management and data entry services. Of the $10,000,000 estimated revenues in fiscal year 76, $8,000,000 was obtained from customers outside the company.

- Greyhound Computer also has a computer leasing division with estimated 1976 revenues of $46,000,000. This group is the largest third party leasor of IBM 360 computers in the nation and is the second largest leasor of IBM 360 and 370 machines. Thirty salesmen are employed, located in offices throughout the USA.

- A third Greyhound Computer group had previously manufactured, but now only refurbishes, IBM plug compatible tape and disk drives. These peripherals are marketed using the leasing group's salesmen.

OVERALL ASSESSMENT:

- Greyhound Computer continues to emphasize its computer leasing business. Whereas it previously had 10 data centers in the United States, 6 of them have been sold within the past 12 months, including those in Los Angeles, San Francisco, San Diego, and Cleveland.

- The remaining data centers are quite dissimilar from one another in terms of applications provided, industries served, type of services provided and geographic location. They are, however, profitable at this time. Greyhound management is now evaluating the future direction of its computer services activities.

*Estimated by INPUT

COMPANY HIGHLIGHT/GREYHOUND COMPUTER CORPORATION

APPLICATIONS: Greyhound Computer data centers, in addition to some industry applications outlined below, have services for accounts receivable, billing, general ledger, financial analysis, sales analysis, and other basic accounting and operations functions.

INDUSTRY MARKETS:

- Greyhound Computer's Austin, Texas center provides an on-line service to savings and loan associations. One client, a savings and loan, is a facilities management customer, and comprises over 65% of the center's revenues.

- Greyhound's Seattle data center offers industry-oriented services to the transportation and pharmaceutical industries. One transportation industry customer is a facilities management account and provides one-half of the Seattle revenues.

- The Chicago center serves a wide range of industries and offers a variety of applications, as well as machine time sales. Ninety percent of the Chicago revenues are for batch services.

- The facilities of the Phoenix center are 100% dedicated to the parent company, which itself is engaged in several industries including transportation, pharmaceuticals, food and food service.

GEOGRAPHIC MARKETS: Greyhound's U.S.-based centers are located in Austin, Texas; Seattle, Washington; Chicago, Illinois; and Phoenix, Arizona. Its largest data center is located in England, employs approximately 350 people, and specializes in data entry work comprising 25% of its revenues.

COMPUTER HARDWARE AND SOFTWARE:

- Greyhound's Seattle center has an IBM 360/50 running under OS and an IBM 360/40 running under DOS.

- The Austin facility has an IBM 360/40 (DOS). Chicago has an IBM 360/65 (OS), two IBM 360/50 (one under OS, one under DOS), and two IBM 360/30 (DOS) mainframes.

- Phoenix has two IBM 360/65 (OS), plus two GE DATANET 30 communications processors hooked to a larger GE computer.

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CONTACT REPORT

Peter
Mike
Caroline

Company Name GREYHOUND COMPUTER Contact Date 6/2/77

Marketing Area/Project _____ Phone ✓ Visit ___

Name: PHIL TIVERSON Title/Role: DIR, MKT DEVELOPMENT

Address: _____

_____ Telephone: (602) 248-2960

INPUT Staff: JO Project Approval Authority:

Yes ____ No ____ Amount: $____

DISCUSSION: (Key words-short descriptions, attach longer notes)

NO LONGER IN COMPUTER SERVICES BUSINESS, LEASING CO STILL EXISTS. DATA CENTERS SOLD TO THE FOLLOWING:

ADP BOUGHT SEATTLE & ENGLAND

COMPUTER USAGE BOUGHT SAN FRANCISCO

FIRST FEDERAL SAVINGS " BOSTON

SDC BOUGHT CHICAGO

L.A. CENTER SOLD TO A CANADIAN FIRM

BUSINESS DEVELOPMENT OR FOLLOW-UP:

Area	Amount	When	Contact

ACTION FOLLOW-UP:

Who	Action	By When	Done

Distribution: Originator Copy, File Copy, Routing Copy

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program

May 1998

Grant Thornton LLP- Baan Services Providers

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The following profile outlines the services and support offered by Grant Thornton LLP for Baan Services.

Company Background

Grant Thornton LLP was founded in 1924. The firm employs over 17,000 professionals worldwide in approximately 500 offices in every major country. In the U.S., Grant Thornton has 50 offices in most major cities, with approximately 3,500 professionals. Revenues for FY'97 were $1.4 billion worldwide.

Grant Thornton specializes in providing professional services to aggressive, growth-oriented businesses. As represented by their signature, "Thinking in the Future Tense," their consultants and other professionals focus on advising clients with a perspective of the future, as well from the demands of today. Believing that bigger does not necessarily mean better, the goal of the firm is not to be the "Biggest," but to be the best at what they do.

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Grant Thornton LLP is a limited liability partnership. The firm provides a number of value-added services to its clients, including management consulting, systems integration and technology, assurance, tax, and business strategy.

Baan Activities

Grant Thornton (GT) started its North American Baan Practice in early 1995. In 1996, GT expanded into an International Service Provider role, providing services in both North and Latin America. GT is recognized by analysts as being a leader in providing systems integration and professional services to the middle market (companies with $1 billion or less in revenue).

Grant Thornton offers a wide variety of services to Baan clients. These services cover a full engagement life cycle—from selecting the Baan software, through full implementation support, and into post implementation optimization. GT clients can choose assistance with any or all of the following activities:

- Project management
- Installation, including database and application tuning, network design, and version upgrades
- Product implementation, either with or without best practice process changes, and in any combination of multi-site environments
- Process modeling and rapid implementation using DEM and GT's copyrighted GT/Prism methodology
- Conversions, personalizations, customizations, and interfaces
- Cost implementation audit and optimization.

GT has a Center of Excellence in Cincinnati, Ohio. This site provides access to the latest releases of the Baan software, serving as a training center for both Grant Thornton and its clients. Additionally, the center is used for software demonstrations for prospective Baan customers.

Grant Thornton is one of several key alliance partners of Baan assisting in the development of the next release of the Aerospace & Defense extension module. This assistance includes defining new functional requirements, detail design, and software construction. GT is also helping with the creation of the training materials to support this new release.

The strength of Grant Thornton lies in their ability to apply business knowledge to improve operations while implementing the Baan software. The client engagement team is specifically constructed of the most appropriate skill sets to fit the unique needs of the client.

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Employees

Worldwide, Grant Thornton has over 2,000 consultants. There are over 700 consultants in North America, and an additional 200 plus in Latin America. The Baan Practice has approximately 100 consultants worldwide, with 60 consultants in the Americas, of which 48 are in the US. The Baan Practice has been growing at an annual rate of thirty percent or better.

Grant Thornton is committed to having all Baan consultants be both experienced and Advanced Certified. GT also has Accredited Trainers, who are consultants who have been through Baan's formal and rigorous accreditation program to assure consistency and quality of education and training. Ninety percent (90%) of the GT Baan consultants have multiple years of successful ERP/business systems implementation experience in their backgrounds. Exhibit 1 identifies the primary Baan skill categories, and notes the distribution of Grant Thornton's North America staff in these areas.

Exhibit 1

Grant Thornton Baan Staffing

Type of Staff	Current Number	Growth % 12 Months
Business Consultants	8	50%
Project Directors	3	33%
Project Managers	5	40%
Application Consultants	20	100%
Technical Consultants	10	100%
Post-implementation Support Personnel	2	
Other		
Total	48	55%

Source: Grant Thornton

Implementation Approaches

Grant Thornton utilizes several proprietary methodologies in the implementations of packaged systems such as Baan. These are described as follows:

- *GT/PRISM (Grant Thornton's Packaged Systems Rapid Implementation System Methodology*
  This methodology focuses on fast-track, rapid implementations. It can also support full scope, reengineering of enterprise-wide processes with the systems implementation. Key features of GT/PRISM include:

  - Milestone and deliverables-based as opposed to traditional task-based approaches

  - Focus on value-added tasks that support the milestones and deliverables

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- Integrates the various elements of the total "system": company vision, business processes, people/organization, enabling software, technology, and project management

- *Project Planning Workshop (PPW)*
  This 1-2 day structured workshop is conducted with the key persons responsible for the project. It is done at the beginning of every implementation project. The outcome of the workshop is a well-defined and commonly understood project plan with roles, responsibilities, and resource needs.

- *Vision-to-Process-to-Software (VPS)*
  This workshop is designed for executive management and the key persons responsible for the success of the implementation project. The objective is to rapidly map the vision of the company to the process and organization changes needed to support the vision. Then, the capabilities required of the software (Baan) are mapped to the processes. The VPS blueprint then guides the remainder of the project.

Imbedded in all Grant Thornton's implementation approaches is the application of best business practices. The GT implementation team is comprised of persons who not only have the Baan knowledge, but also have demonstrated operations improvement capabilities.

Ongoing Support Offerings

Grant Thornton supports its clients by having the latest releases of the Baan software on internal servers. This provides immediate system access to help clients resolve issues, as well providing the ability for GT consultants to have day-to-day access to enhance their individual skills.

Additionally, Grant Thornton maintains a reference/knowledge database for internal use. This database provides the consultants access to deliverables from previous engagements, so that they do not have to "reinvent the wheel" on subsequent projects.

Pricing Approaches

Grant Thornton performs engagements on either a fixed fee, or time and materials basis. The pricing arrangement depends upon numerous factors that vary by project. Factors include the amount of reengineering to be performed, the complexity of customizations and interfaces, the resource commitment by the client, the scope of the project, the degree of risk associated with the effort, etc.

Grant Thornton also provides various training and education courses. These include advanced manufacturing concepts, standard APICS courses, Baan training, project management training, team facilitation, etc. The prices for these courses will vary depending upon where they are held and any customizations desired for the environment.

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Alliances and Partnerships

Grant Thornton has a number of formal and informal alliances with other Baan-centric service and software providers. Relationships exist as follows:

- *Adonix Transcomm (formerly ADP-GSI)*
  GT and Adonix work together in providing customizations, interfaces, and personalizations
- *Aurum*
  GT provides implementation services
- *CODA*
  GT provides implementation services
- *Cyborg*
  GT provides implementation services and has written interfaces between the Cyborg and Baan products
- *Vertex*
  GT provides implementation services

Grant Thornton also works with a number of Baan resellers.

Vertical Market Competencies

The Grant Thornton Baan Practice has expertise in every vertical market that Baan has targeted. The vertical markets where GT is currently strongest include aerospace & defense (A&D), automotive, projects, and electronics, in that order. Grant Thornton is working very closely with Baan in developing the next release of Baan's A&D extension. In the automotive vertical, GT has extensive experience, including work with one of the premiere truck manufacturers in the US. GT is recognized as a leader in the engineering and construction—"big projects"—world. Electronics expertise comes from multiple projects with contract electronics manufacturers.

Grant Thornton's participation in vertical markets is noted in Exhibit 2. The table also indicates the percentage of GT revenues and projects represented by each vertical market.

Exhibit 3 details GT's participation in seven broad market categories, in terms of the level of consulting or implementation involvement (e.g., consulting with the client, who will then perform the implementation, or implementing the Baan system for the client).

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Exhibit 2

Vertical Market Expertise

Vertical Market	Sub-segment	% of Revenues	% of Projects
Discrete Manufacturing	• Automotive	40%	30%
	• Aerospace	40%	30%
	• Electrical & Electronic	10%	10%
	• Mechanical/Engineering	10%	30%

Source: Grant Thornton

Exhibit 3

Level of Vertical Market Involvement, by Activity

Vertical Market	Consulting	Implementation
Aerospace & Defense	High	High
Automotive	High	High
Process Industries	Medium	Medium
Hybrid	Medium	Medium
Project Industries	High	Medium
Electronics	High	High
General Manufacturing	High	Medium

Source: Grant Thornton

Strategic Positioning

Grant Thornton is recognized for its leadership position in providing professional services to the middle market—companies $100 million to $1 billion in size. The GT brand of "Thinking in the Future Tense" appropriately describes the mindset by which its clients are served. Baan implementation, customization, education, and business process optimization services are all delivered with the future success of the client in mind.

The methodologies that Grant Thornton employs are structured around rapid implementation and best practices. In almost every project, GT is asked to apply advanced manufacturing and supply chain techniques to the organization and process changes that are being enabled by the Baan software. This unique blend of world class know how and detailed knowledge of the Baan software (and other software partners' products), delivers exceptional value to clients.

Grant Thornton strongly believes in the power of relationships. GT works very closely with a number of Baan technology and service partners to deliver the best value to the joint customer/client.

The Grant Thornton objective is to not be the biggest, but to be the best at what it does.

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Plans for the Future

As Baan broadens its suite of software offerings through the core Baan software, acquisitions of other products, and relationships with other software suppliers, Grant Thornton intends to provide both implementation and technical support across this wide array of software. GT already has core groups, such as their CODA group, with deep skills in these new areas.

Grant Thornton intends to be a full service provider, including product and technical support, for every major Baan product. GT has started providing customization services with Baan. (GT has performed customizations for other software packages for years.) Additionally, GT intends to expand its number of fully accredited Baan trainers.

Grant Thornton is aggressively pursuing the Latin American markets, recognizing the strong potential for business relations between North and Latin America. GT has Baan resources in several key European countries and intends to become a global Baan alliance provider in the near future.

Selected Customer Projects

The following profiles are for selected Baan engagements. At GT clients' requests, the names of the companies are confidential.

Manufacturer and Distributor of Lift Trucks

- *Revenues*: $750 million
- *Location*: Midwest
- *Product*: Lift trucks and warehousing related products
- *Baan Software*: BAAN 4.b, all Finance, Distribution, and Manufacturing modules
- *No. of Users*: Approximately 1,000
- *GT Services*: Project management, product specialists, training, business process improvements through advanced manufacturing techniques.

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Manufacturer of Commercial Trucks

- *Revenues*: $2 billion plus
- *Location*: Midwest
- *Product*: Medium and heavy duty trucks, school buses, and diesel engines
- *Baan Software*: BAAN 4.c, most Finance, Distribution, and Manufacturing modules
- *No. of Users*: Approximately 800
- *GT Services*: Product specialists, customizations, interfaces, related quality and ISO services

Manufacturer of Network Routers and Related Equipment

- *Revenues*: $500 million
- *Location*: Midwest
- *Product*: Network routers and related equipment
- *Baan Software*: BAAN 4.c, all Finance, Distribution, and Manufacturing modules
- *No. of Users*: approximately 200
- *GT Services*: Project management, product specialists, personalizations and interfaces, database and application tuning.

In addition to the above, Grant Thornton is actively subcontracting to Baan at a number of A&D clients.

References will be provided to Baan, Baan customers, or prospective Baan customers upon request. Grant Thornton directs inquiries to the appropriate reference client, depending upon the purpose of the reference call.

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GRUMMAN DATA SYSTEMS AND SERVICES GROUP

1111 Stewart Avenue
Bethpage, NY 11714
Phone: (516) 575-6200

President:	Gerald H. Sandler
Status:	Operating Group
Parent:	Grumman Corporation
Total Employees:	4,500
Total Revenue:	$450,000,000
Fiscal Year End:	12/31/91

Key Points

- Grumman Data Systems and Services Group's strategy is to provide customers with large-scale information systems solutions that solve specific computing requirements, improve their work processes, and significantly reduce costs.
- The Group's strengths include:
  - More than 20 years' experience in designing and implementing large-scale information systems involved in advanced data processing and computing; logistics and industrial modernization; and command, control, and intelligence
  - A strong concentration on program management, systems engineering, software design and development, geographic information systems, and advanced imaging
  - The ability to work synergistically among its three operating divisions when customer needs require
  - Not being committed to any single hardware or software vendor
    - The company has experience selecting and integrating a variety of commercial, off-the-shelf software packages.
    - Since the company is not aligned with any one hardware supplier, it can work with the most appropriate vendor to deliver the best integrated solution.

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Company Description

Grumman Data Systems and Services Group (GDSS) provides systems integration and professional services for large-scale information systems used by federal, state, and local government agencies and private industry. GDSS also provides information services support to Grumman and third-party hardware maintenance services. The group's current operations include the following divisions:

- Grumman Data Systems (GDS), headquartered in Bethpage (NY) with 2,000 employees, provides professional and systems integration services for large-scale information systems to government and commercial clients and other Grumman units.
  - InfoConversion, based in Woodbury (NY), provides integrated image management systems and electronic publishing services to government and commercial clients.
- Grumman Systems Support (GSS), based in Woodbury (NY), provides facility planning, systems operations, network design, systems installation and integration and equipment maintenance services to commercial clients.
- Grumman Technical Services (GTS), based in Melbourne (FL), provides operations, maintenance, and engineering services for NASA, and other federal and international organizations.

GDSS' parent, Grumman Corporation, is a $4 billion firm headquartered in Bethpage (NY). In addition to information services, Grumman manufactures military aircraft, space systems, and commercial aircraft components; manufactures and integrates electronics systems for aircraft, computerized test equipment, and other defense-related products; and manufactures special-purpose vehicles.

Divestitures

Grumman Data Systems Institute, which offered career training in computing, was sold by Grumman during 1992. It previously operated as a unit of Grumman Data Systems.

Financials

GDSS' total 1991 revenue was about $450 million, of which approximately 60% is derived from sales to the Department of Defense; federal, state, and local civil agencies; and private industry. The remaining 40% is derived from sales to other units of Grumman.

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Competitors

GDSS' major competitors include Computer Sciences Corporation, Electronic Data Systems, and Boeing Computer Services.

Key Products and Services

GDSS reports that 68% of its total revenue is derived from professional services, while 52% is derived from systems integration. The percentage and revenue attributed to systems integration includes professional services activities that are an integral part of systems integration contracts and programs.

GDSS' noncaptive (non-Grumman) revenue is derived from professional services, systems integration, facilities management (systems operations), and hardware sales, maintenance, and other services.

Grumman Data Systems (GDS):

Grumman Data Systems (GDS) concentrates on program management, hardware and software engineering, computer graphics, multivendor environments, networks, high-level systems architecture, and machine intelligence and correlation.

- GDS is one of the federal government's top integrators of custom large-scale information systems for administrative, technical, scientific, tactical, engineering, and business applications.
- The division's integration services include design, development, test, evaluation, training, maintenance, and operations support.

In the area of ADP and Computing Systems, GDS designs high-performance business and financial, imaging, and geographic information systems.

- These systems support engineering, analysis, computational, modeling, and scientific applications for NASA; and tactical and administrative programs for the Department of Defense. They also support requirements for financial, administration, resource management, inventory control, and order entry for federal, state, and local agencies and governments.
- Project examples include the following:
  - The Engineering Analysis and Data System for NASA
  - The multilevel Headquarters Systems Replacement Program in the Pentagon for the Air Force

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- Management information systems for government agencies in Massachusetts and Maryland

In logistics and industrial modernization, GDS has integrated systems for supply, maintenance, overhaul/repair, and acquisition.

- GDS is installing one such system for the Air Force Logistics Command (Fairborn, OH). The Depot Maintenance Management Information System (DMMIS) is a fully integrated, on-line system that is replacing 33 existing systems and linking all of the Command's nationwide units for the first time.

- GDS is also enlarging information systems for the Defense Logistics Agency's Service Center in Battle Creek (MI). This hardware and software upgrade will allow the agency to expand service from an on-line customer base of 600 users to over 12,000.

- As a member of the American Manufacturing Research Consortium in North Charleston (SC), GDS is part of the team developing the Rapid Acquisition of Manufactured Parts program for the U.S. Navy, a manufacturing system that will reduce spare parts production and procurement time from months to days.

In the area of decision support systems, GDS is providing command, control, and intelligence (C2/I) systems for the U.S. Marine Corps Advanced Tactical Air Command Central (ATACC) program. Housed in mobile battlefield command centers, each ATACC system will generate air task orders automatically and provide decision support in planning aircraft operations. The program is a eight-year project with a value of $128 million.

- In another C2/I application, GDS, teamed with Unisys, is delivering a system to coordinate the operations of 13 previously separate agency data bases into a single criminal justice information system for Suffolk County (NY). The program is valued at $7.7 million.

- GDS is currently leading a team of industry specialists updating the command, control, and communications center of the Seoul Metropolitan Police in the Republic of Korea. The new system will feature computer-aided dispatch integrated with an advanced digital trunked radio system. The two-year contract is valued at $15.6 million.

In the area of system security and systems integrity, GDS has developed methodologies of assessments, analysis, planning, design, implementation, and tests. GDS' areas of expertise include security education and awareness; systems integrity surveys and technical analysis; trusted systems engineering and assurance;

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telecommunications integrity, design, and assurance; recovery services integration; and automated accreditation and assurance integration.

In the area of computer-aided logistics (CALS), GDS has designed networks that not only support CALS standards, but also follow Government Open System Interconnect Protocols so they can communicate with other computer systems used by the federal government.

In the area of image management, GDS' InfoConversion unit provides integrated image management systems and electronic publishing services in the commercial and government markets.

GDS' research and development focuses on emerging technologies such as digital graphics, software engineering, multilevel secure local-area networks, artificial intelligence software, robotics, fault-tolerant distributed systems, parallel processing, and neural networks, as well as emerging standards such as HIPPI, MAP, CALS, TOP, FDDI, and ISDN.

Grumman Systems Support (GSS):

GSS is a nationwide integrator of support services for computer systems and networks. The division's services cover all phases of computer systems integration as well as network support, facility management, hardware maintenance, equipment sales, and software support.

- GSS serves hundreds of clients in manufacturing, health care, banking, manufacturing, and government from more than 60 service facilities across the country.

- GSS supports customers' data and voice networks with service that includes design, engineering, implementation, management, and maintenance of local- and wide-area networks. One of GSS' specialties is the use of intelligent wiring hubs to provide interconnectivity among different transport media and computing equipment.

As a provider of third-party maintenance services, GSS field service engineers perform thousands of on-site service repairs each year on technical workstations, minicomputers, microcomputers, image processing systems, and peripheral devices. Major brands of equipment serviced include Sun Microsystems, DEC, Data General, Solbourne, and IBM.

GSS also sells and installs a range of computing products, from complete systems to peripheral devices. Equipment sales may be

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included as part of a systems integration package or on a standalone basis.

Grumman Technical Services (GTS):

Since 1983's Space Shuttle Processing Contract, GTS provides engineering, operation, maintenance, and related services in support of high-technology activities for NASA and other government agencies.

- GTS performs all launch processing support for the Space Shuttle at Kennedy Space Center. This includes operation, maintenance, and engineering support; instrumentation and calibration of all Shuttle ground equipment, systems, and facilities; logistics support; and configuration and documentation management.

GTS currently maintains and operates a variety of simulators at over 25 sites worldwide, providing hardware modifications, software management, and development of modifications and upgrades for simulation software.

- In addition to providing training systems support for Grumman aircraft, GTS also provides support for training systems built by other manufacturers and systems that simulate non-Grumman aircraft (including helicopters), as well as non-aircraft devices and functions.

GTS personnel also provide aircraft support services under contracts with the U.S. Navy.

- Currently, GTS maintains P-3, A-6, F-4, and A-7 aircraft in support of the Pacific Missile Test Center in Pt. Mugu (CA). GTS personnel also maintain all TA-4J aircraft used in primary jet pilot training at sites in Mississippi, Texas, and California.

Industry Markets

GDSS' noncaptive revenue is derived primarily from federal government contracts or subcontracts. The remainder is derived from state and local government, commercial, and international clients.

Geographic Markets

INPUT estimates that over 99% of GDSS' revenue is derived from U.S.-based clients.

GDSS operates from over 100 locations through the U.S. and abroad.

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GRUMMAN DATA SYSTEMS CORPORATION
1111 Stewart Avenue
Bethpage, NY 11714-3580
(516) 682-8500

Robert J. Myers, President
Division of Grumman Corporation
Total Employees: 3,000
Total Revenue, Fiscal Year End:
12/31/86: $309 Million
Noncaptive Computer Services
Revenue: $124 Million*

THE COMPANY

- Grumman Data Systems Corporation (GDS) designs, develops, installs, operates, and supports computer systems for technical and management information processing. In addition to these professional services, GDS also serves Grumman Corporation users and provides third-party hardware maintenance services.

  - Grumman Corporation, with 1986 revenue of $3.5 billion, manufactures aircraft and aircraft, electronic, and space systems. Grumman also manufactures special purpose vehicles including trucks for the U.S. Postal Service, van-bodied economy trucks, fire fighting trucks and equipment, and pontoon and fishing boats.

  - All of Grumman Corporation's computer services needs are met by GDS.

- Total revenue in 1986 was $309 million, a 26% increase over 1985 revenue of $245 million. Noncaptive computer services revenue is estimated at $124 million in 1986. A five-year revenue summary follows:

GRUMMAN DATA SYSTEMS CORPORATION
FIVE-YEAR REVENUE SUMMARY
($ millions)

ITEM \ FISCAL YEAR	1986	1985	1984	1983	1982
Total revenue	$309	$245	$196	$156	$138
. Percent increase from previous year	26%	25%	26%	13%	18%

- Key acquisitions made by GDS include the following companies:

  - CTEC, Inc., acquired in January 1984, has been merged into GDS. The company specializes in command, control, communications, and intelli-

*INPUT estimate

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gence (C^3I) applications and builds, installs, and maintains intelligence information systems.

- In April 1984 Computer Systems Support Corporation was acquired and merged into GDS' Systems Maintenance Services group. This group is now called Grumman Systems Support.

- In April 1986 GDS sold its ISI Systems, Inc. unit that provides software and services to the insurance industry to its president and founder for $20 million. GDS had acquired ISI in 1976.

- Grumman Data Systems specializes in engineering and scientific systems, integrated manufacturing systems, and C^3I systems. GDS also fulfills all the internal information services needs of its parent company, Grumman Corporation.

  - GDS is further organized into three business units as follows:

    . Grumman Data Systems Institute provides career education and training services in computers, electronics, and business.

    . InfoConversion provides electronic composition and publishing information services using customer data bases.

    . Systems Support provides third-party hardware maintenance services.

- As of December 31, 1986, GDS had approximately 3,000 employees, segmented as follows:

Internal	60%
External	40
	100%

- Major competitors include TRW Information Services, Boeing Computer Services, Electronic Data Systems, and Computer Sciences Corporation.

KEY PRODUCTS AND SERVICES

- Approximately 98% of GDS' 1986 noncaptive computer services revenue was derived from professional services. The remaining 2% was derived from batch processing electronic publishing services.

- GDS provides professional services custom software development, consulting, and systems integration services.

- GDS professional services specialty areas are C^3I applications, engineering and scientific systems, and integrated manufacturing systems.

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- C^3I large-scale systems integration services include developing and integrating customized systems for managing information, problem solving using the latest information systems and communications technologies, and providing total life cycle support to its systems.

- Engineering and scientific computing disciplines and technologies include vector and image processing, simulation, mathematical modeling, advanced networking, LANs, very high data rate communications links, and intelligent workstations.

- Integrated manufacturing applications include maintenance management, production management, scheduling, manufacturing resource planning, decision support systems, and networks and communications.

- Contract examples include the following:

  . In January 1987 GDS received a $40 million contract to design a computerized jet engine test support system for Rolls Royce, Ltd. of Bristol, England.

  . In July 1986 GDS completed the installation of the engineering analysis and data systems at NASA Marshall Space Flight Center in Huntsville (AL) and continues to support it with user training and systems upgrades.

  . GDS is one of the contractors selected by the Navy to develop a computerized and robotic facility that will make small mechanical parts and printed wiring assemblies at high speed. Grumman is responsible for software engineering, selection of computer hardware, and computer networks within the facility.

- Grumman Data Systems Institute (GDSI) provides professional services career education and training in computers, electronics, and business.

  - GDSI's curriculum includes Computer Programming/Operations, Systems Analysis, Automated Office Technology, Computerized Accounting, Computer Aided Design and Drafting, Electronic Technology/Assembly, and Computer Service Technology.

  - GDSI campuses are located in Woodbury and Bohemia (NY).

- InfoConversion provides batch processing electronic publishing services to government agencies and corporate customers that need to publish large volumes of paperwork.

  - InfoConversions takes its customers' raw data and uses its computer-based electronic publishing system to compose each page of the publication. The system allows selection of type fonts and sizes, merges text and art, and displays the composed page on a video terminal.

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- REMOTEXT is a remote, automated text management system that uses a telephone link to connect the customer's data base on InfoConversion's system to a desktop visual display terminal or word processor on the customer's site.

- Output options include camera ready copy, 105mm graphic arts or alphanumeric microfiche, 35mm and 16mm film, and electronic data base.

- Grumman Systems Support provides noncomputer services-related third-party hardware maintenance services.

INDUSTRY MARKETS

- INPUT estimates that approximately 90% of GDS' 1986 noncaptive computer services revenue was derived from federal government contracts or subcontracts. The remaining 10% was derived from state and local governments and large corporations.

GEOGRAPHIC MARKETS

- Virtually all of GDS' 1986 noncaptive computer services revenue was derived from the U.S.

- GDS maintains offices in Boston, Charleston (SC), Colorado Springs, Huntsville (AL), New York, Omaha, San Diego, and Washington, D.C.

COMPUTER HARDWARE AND SOFTWARE

- GDS maintains equipment from most major computer manufacturers in two primary data centers located in Holtsville and Bethpage (NY).

- GDS also maintains various data centers across the U.S. in support of Grumman Corporation and its customers.

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GSI TRANSCOMM
1380 Old Freeport Road
Pittsburgh, PA 15238
(412) 963-6770

Philippe Beaurain, President
Wholly Owned Subsidiary of GSI
Total Employees: 195 (8/92)
Total Revenue, Fiscal Year End
12/31/91: $15,000,000*

*INPUT estimate

The Company

GSI Transcomm was founded as Transcomm Data Systems Incorporated in 1972 to provide timesharing facilities on DEC PDP-11 series computers. Several years later, the company developed a distribution and financial management software system known as TOLAS™ for DEC VAX systems. The company also provides associated consulting, customization, project management, implementation, and training professional services.

- GSI Transcomm has participated in DEC's Cooperative Marketing Program since 1985.

- The company was acquired by Paris-based GSI in 1977 and became a subsidiary of GSI. Today, GSI Transcomm is the largest North American activity of GSI. Worldwide, GSI employs 3,300 people and reported 1991 revenues of approximately $425 million.

INPUT estimates GSI Transcomm's 1991 revenue reached $15 million, approximately a 20% increase over estimated 1990 revenue of $12.5 million.

GSI Transcomm's major competitors include Computer Associates and Andersen Consulting.

Key Products and Services

GSI Transcomm's TOLAS product is a highly-integrated software solution for sales and customer service, product distribution, logistics and warehouse management, as well as inventory and financial control. Initially developed in 1974, TOLAS is designed to operate on DEC's family of VAX systems.

- TOLAS is written in VAX BASIC for the VMS operating system. It supports RMS and Rdb, NAS-compliant, All-In-1, CDD/Repository, Datatrieve, GKS, GUI, and DEC EDI.

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- TOLAS is organized into the following 21 application modules:
  - Sales Order Management
  - Sales Analysis
  - Purchase Order Management
  - Purchasing Analysis
  - Physical Inventory Control
  - Distribution Requirements Planning
  - Stock Replenishment
  - Shipping Management
  - Receiving Management
  - Accounts Payable
  - Accounts Receivable
  - General Ledger
  - Bank Reconciliation
  - Business Partners
  - Product Management
  - Multicurrency Processing
  - International Taxation
  - Bar Coding
  - TOLAS Information Reporting System
  - TOLAS Information Centre (Relational)
  - TOLAS/WMS (Automated Paperless Warehousing)
- TOLAS provides complete, systemwide multicurrency processing and international taxation.
- TOLAS is licensed, supported and installed in 12 countries in North America, Europe, the Pacific Rim, and the Far East.
- The modules vary in price from $5,000 to $355,000, depending on the application and hardware used.
- There are 450 companies using TOLAS worldwide, which represents approximately 1,500 user sites.

Industry Markets

The TOLAS application solution is installed in medium- to large-sized companies, including Fortune 500 corporations. Almost all the installations are in wholesale distributors or manufacturers with product distribution requirements.

Industries where TOLAS is installed include industrial and consumer electronics, industrial equipment and supplies, consumer packaged goods, and chemicals and pharmaceuticals.

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Geographic Markets

Approximately 80% of GSI Transcomm's 1991 revenue was derived from the U.S. and the remaining 20% from Canada and the Pacific Rim.

In addition to its headquarters in Pittsburgh, the company has offices in Huntington Beach and Santa Clara (CA), Elmsford (NY), Boston (MA), and Toronto (Canada).

GSI is headquartered in Paris (France).

Computer Hardware

GSI Transcomm has an extensive VAX computer and Apple Macintosh network installed at its headquarters in Pittsburgh.

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GSI TRANSCOMM
1380 Old Freeport Road
Pittsburgh, PA 15238
(412) 963-6770

Philippe Beaurain, President
Wholly Owned Subsidiary of GSI
(Generale de Service Informatique)
Total Employees: 110
Total Revenue, Fiscal Year End
12/31/89: $10,000,000

The Company

GSI Transcomm was founded as Transcomm Data Systems Incorporated in 1972 to provide timesharing facilities on DEC PDP-11 series equipment. GSI Transcomm currently provides a distribution management and financial control application software package for DEC VAX computers. The company also provides associated customization, implementation, and training professional services.

- The company was acquired by Generale de Service Informatique (GSI) in 1977 and became a subsidiary of GSI.
- GSI Transcomm has participated in DEC's Cooperative Marketing Program since 1985.

GSI Transcomm's 1989 revenue reached $10 million, a 25% increase over 1988 revenue of $8 million.

GSI Transcomm's major competitor is Computer Associates.

Key Products and SErvices

GSI Transcomm derived approximately 50% of its 1989 revenue from the sale of the TOLAS™ application software system. The remaining 50% of revenue was derived from associated professional services (40% from customization and 10% from training).

GSI Transcomm's proprietary product, TOLAS, was developed in 1974 and is designed for large-scale DEC VAX computers.

- The system is written in DEC's native Basic language and runs under standard DEC VMS. The system uses DEC's Record Management Services (RMS) on DEC VAX computers for file processing.

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- TOLAS is organized into 17 application modules which can be installed separately or together as an integrated system.

- TOLAS modules include:

  - Order Entry and Invoicing
  - Inventory Management
  - Warehouse Management
  - DRP/Forecasting
  - Purchase Order Management
  - Purchasing Analysis
  - Sales Analysis
  - Financial Reporting
  - Accounts Payable
  - Accounts Receivable
  - Fixed Assets
  - Multicurrency
  - SALESTREAM™
  - TOLAS Inquiry and Reporting System (including a TOLAS-to-PC interface)
  - TELESTREAM
  - LEADSTREAM
  - Bar Coding

- The modules vary in price from $5,000 to $60,000, depending on the application and hardware used. Over 400 systems, some with multiple modules, have been installed throughout the U.S., Canada, Western Europe, and Australia.

GSI Transcomm can customize TOLAS for each installation and specializes in multilocation environments. These professional services accounted for 40% of total 1989 revenue.

Separately billed training services provided to TOLAS customers accounted for 10% of 1989 revenue.

The company no longer provides processing services.

Industry Markets

The TOLAS application system has been installed in medium- to large-sized companies, including Fortune 500 corporations. Approximately 75% of the installations are in companies in the distribution industry, with the balance in a variety of industries, including manufacturing, banking, and international trade.

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Geographic Markets

Approximately 80% of GSI Transcomm's 1989 revenue was derived from the U.S. and the remaining 20% from Canada, Australia, and New Zealand.

In addition to its headquarters in Pittsburgh, the company has offices in Huntington Beach and San Francisco (CA), Guilford (CT), and Toronto (Canada).

Computer Hardware

GSI Transcomm has the following systems installed at its headquarters in Pittsburgh:

- DEC VAX-11/750s
- DEC VAX-11/785s
- Multiple DEC MicroVAX 2000s
- 1 DEC VAX 3600

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COMPANY PROFILE

GSI TRANSCOMM
1380 Old Freeport Road
Pittsburgh, PA 15238
(412) 963-6770

Phillip Beaurain, President
Wholly owned subsidiary of GSI
(Generale de Service Informatique)
Total Employees: 60
Total Revenue, Fiscal Year End
12/31/86: $5,000,000

THE COMPANY

- GSI Transcomm was founded as Transcomm Data Systems Incorporated in 1972 to provide timesharing facilities on DEC PDP-11 series equipment. GSI Transcomm currently provides a distribution management and financial control application software package for DEC minicomputers. The company also offers professional services and processing services.

  - The company was acquired by Generale de Service Informatique (GSI) in 1977 and became a subsidiary of GSI.

  - Prior to 1985, GSI Transcomm was an Authorized Equipment Dealer for DEC. In 1985, GSI Transcomm and DEC entered into a Cooperative Marketing Program (CMP) whereby the companies will mutually market their respective products.

- GSI Transcomm's 1986 revenue reached $5 million, a 25% increase over 1985 revenue of $4 million.

- As of December 31, 1986, GSI Transcomm employed approximately 50 persons. There are currently 60 employees.

- Major competitors include Distribution Management Systems, Inc., Ross Systems, Inc., and CDIS (Computer Data Information Systems).

KEY PRODUCTS AND SERVICES

- GSI Transcomm derived over 50% of its 1986 revenue from the sale of the TOLAS$^{T.M.}$ application software system. Approximately 40% was derived from professional services and the remaining 10% was from processing services.

- GSI Transcomm's proprietary product, TOLAS, was developed in 1974 and is designed for large-scale DEC VAX computers.

  - The system is written in DEC's native Basic language and runs under standard DEC VMS. The system uses DEC's Record Management Services (RMS) on DEC VAX computers for file processing.

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- TOLAS is organized into 12 application modules which may be installed separately or together as an integrated system.

- The modules available are as follows:

  . Order Entry and Invoicing.
  . Inventory Management.
  . Purchase Order Management.
  . Sales Analysis.
  . Financial Reporting.
  . Accounts Payable.
  . Accounts Receivable.
  . Fixed Assets.
  . SALESTREAM™.
  . TOLAS Inquiry and Reporting System (including a TOLAS-to-PC interface).
  . TELESTREAM.
  . LEADSTREAM.

- The modules vary in price from $5,000 to $40,000, depending on the application and hardware used. Over 250 systems, some with multiple modules, have been installed throughout the U.S., Canada, and Western Europe.

- GSI Transcomm can customize TOLAS for each installation and specializes in multilocation environments. These professional services accounted for 40% of total 1986 revenue.

- GSI Transcomm also provides timesharing and facilities management processing services for several organizations.

INDUSTRY MARKETS

- The TOLAS application system has been installed in medium- to large-sized companies, including Fortune 500 corporations. Approximately 90% of the installations are in companies in the distribution industries, with the balance in a variety of industries, including banking and international trade.

GEOGRAPHIC MARKETS

- Approximately 80% of GSI Transcomm's revenue is derived from the U.S. and the remaining 20% is derived from Canada, New Zealand, and Australia.

- GSI Transcomm services its customers in the U.S. and Canada from its headquarters in Pittsburgh (PA). European business is handled by the Business Management Division of GSI.

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COMPUTER HARDWARE AND SOFTWARE

- GSI Transcomm has the following systems installed at its headquarters in Pittsburgh:
  - DEC VAX-11/750s.
  - DEC VAX-11/785s.

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COMPANY PROFILE*

GSI TRANSCOMM
1380 Old Freeport Road
Pittsburgh, PA 15238
(412) 963-6770

Philippe Beaurain, President
Wholly owned subsidiary of GSI
(Generale de Service Informatique)
Total Employees: 40
Total Revenue, Fiscal Year End
12/31/84: $3,700,000

THE COMPANY

- GSI Transcomm was founded as Transcomm Data Systems Incorporated in 1972 to provide timesharing facilities on DEC PDP-11 series equipment. In 1974 the company developed the TOLAS$^{T.M.}$ application software package for distribution management and financial control. In 1977 Transcomm became a subsidiary of GSI, an organization providing data processing services in Western Europe. GSI Transcomm now provides application software for DEC and Tandem minicomputers.

- GSI Transcomm's 1984 revenue reached $3.7 million. Management projects that 1985 revenue will reach $4.2 million.

- Major competition for GSI Transcomm's financial and distribution software system comes from Amcor Computer Corporation, Distribution Management Systems, Inc., White Hat Systems, Inc., and Ross Software.

- As of December 31, 1984, GSI Transcomm employed approximately 40 people. There are currently 50 employees.

KEY PRODUCTS AND SERVICES

- GSI Transcomm derived over 90% of its 1984 revenue from the sale of the TOLAS$^{T.M.}$ application software system. Less than 10% was derived from processing services.

- TOLAS is a proprietary product of GSI Transcomm, designed for large-scale DEC PDP-11 and VAX computers, including the VAX 8600. GSI Transcomm can customize TOLAS for each installation and specializes in multilocation environments. Beginning in 1986 TOLAS will be offered for Tandem TXP, EXP, and TNS2 computers.

  - The system is written in DEC's native BASIC language and runs under standard DEC RSTS/E and VMS. The system uses GSI Transcomm's File Management System (FMS) on DEC PDP-11s or DEC's Record Management Services (RMS) on DEC VAX computers for file processing. The Tandem version of TOLAS is written in COBOL and runs on the GUARDIAN operating system.

*Replaces Company Profile on Transcomm Data Systems Incorporated of November 1982

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- TOLAS is organized into 10 application modules which may be installed separately or together as an integrated system.

- The modules available are as follows:

  . Order Entry and Invoicing.
  . Inventory Management.
  . Purchase Order Management.
  . Sales Analysis.
  . Financial Reporting.
  . Accounts Payable.
  . Accounts Receivable.
  . Fixed Assets.
  . SALESTREAM™.
  . TOLAS Inquiry and Reporting System (including a TOLAS-to-PC interface).

- The modules vary in price from $5,000 to $26,000, depending on the application and hardware used. Over 250 systems, some with multiple modules, have been installed throughout the U.S., Canada, and Western Europe.

- GSI Transcomm also provides timesharing services and facilities management processing services for several organizations.

- Prior to 1985, GSI Transcomm was an Authorized Equipment Distributor for Digital Equipment Corporation. In 1985 GSI Transcomm and Digital entered into a Cooperative Marketing Program (CMP) whereby the companies will mutually market their respective products. In 1986, GSI Transcomm will be a member of Tandem's Alliance Program.

INDUSTRY MARKETS

- The TOLAS application system has been installed in medium to large sized companies, including Fortune 500 corporations. Approximately 50% of the installations are in companies in the distribution industries, with the balance in a variety of industries including banking, and international trade.

GEOGRAPHIC MARKETS

- Approximately 90% of GSI Transcomm's revenue is derived from the U.S. and the remaining 10% is derived from Canada, New Zealand, and Australia.

- GSI Transcomm services its customers in the U.S. and Canada from its headquarters in Pittsburgh (PA). European business is handled by the parent company, GSI.

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COMPUTER HARDWARE

- GSI Transcomm has the following hardware installed at its Pittsburgh data center:
  - 1 DEC PDP-11/34.
  - 2 DEC VAX-750s.
  - 1 DEC VAX-785.
  - 2 Tandem TNS2s.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

November 1996

GTE Data Services Incorporated

President: C. Michael Crawford
Telecom Park
One Telecom Parkway
Temple Terrace, FL 33637
Phone: (813) 978-4000
Internet: http://www.gte.com

Status:	Subsidiary
Parent:	GTE Corporation
Employees:	4,000 (10/96)
Revenue:	$500,000,000*
Noncaptive Revenue:	$100,000,000*
Fiscal Year End:	12/31/95

** INPUT estimates*

Key Points

- GTE Data Services (GTEDS) is a leading U.S. software development and information management company.
- In August 1996, GTEDS entered into a three-year contract with Portugal Telecom to supply a next-generation billing and customer care system.

Company Description

GTEDS was formed in October 1967 to provide information management and systems development services to customers nationwide. The company now provides data processing, office automation, and internal telecommunications products and services to GTE Telephone Operations in the U.S., Canada, and the Dominican Republic, as well as commercial customers.

GTEDS is an unregulated, wholly owned subsidiary of GTE Corporation, one of the largest publicly held telecommunications companies in the world.

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All brand names and product names are acknowledged to be trademarks or registered trademarks of their owners.

- GTE is among the largest U.S.-based local telephone companies and is a leading cellular-service provider.
- GTE also provides government and defense communications systems and equipment, aircraft-passenger telecommunications, directories, and telecommunication-based information services and systems.
- In 1995, GTE and its subsidiaries had revenue of nearly $20 billion and approximately 110,000 employees.
- GTE is comprised of eight divisions:
  - GTE Airfone Incorporated
  - GTE Government Systems Corporation
  - GTE Information Services
  - GTE Laboratories Incorporated
  - GTE Mobilnet Incorporated
  - GTE Service Corporation
  - GTE Telecommunication Services Incorporated
  - GTE Telephone Operations

GTEDS is a unit of the GTE Telephone Operations business unit, which provides voice, data, and video products and services in the U.S.

- GTE Telephone Operations accounted for approximately $13.4 billion (67%) of GTE's 1995 revenue.
- As of December 31, 1995, GTE Telephone Operations had wireline operations in 28 states, serving more than 12.4 million residential and 6.1 million business lines.
- GTE Telephone Operations is headquartered in Irving (TX) and has ten regional headquarters across the U.S.
- GTE Telephone Operations has approximately 70,000 employees.

Organization and Structure

GTEDS, headquartered in Tampa (FL), has operations domestically, located in Jacksonville (FL), Phoenix (AZ), Jefferson City (MO), Topeka (KS), Sacramento (CA), and Fort Wayne (IN).

GTEDS maintains three strategically located information processing centers in Temple Terrace (FL), Sacramento (CA), and Fort Wayne (IN).

GTEDS' Technology Center, located in Temple Terrace (FL), houses approximately 2,500 employees in research, development, and engineering of major software projects.

Company Strategy

The company is continuing to expand operations and services internationally.

- During 1995, GTEDS opened a marketing office and began construction of a data center in Mexico as part of the company's plan to provide commercial and governmental data processing services in the country.
- In August 1996, GTEDS entered into a three-year contract with Portugal Telecom to supply a next-generation billing and customer care system.

During 1995, GTEDS also continued to expand its level of service to nonaffiliated companies.

Demonstrating its customer focus, GTEDS' mission is "to complete a solution that ensures cost effectiveness, timely implementation, improved communications, unsurpassed customer satisfaction, and long-term success."

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Financials

INPUT estimates that GTEDS' total revenue for 1995 was approximately $500 million, of which approximately 20% or $100 million was derived from noncaptive sources.

Revenue Analysis by Product/Service

GTEDS' information services revenue is derived from professional services (software development, IT consulting, and education and training), data processing, and systems and network integration.

Market Financials

GTEDS provides products and services to GTE and affiliated companies in the telecommunications industry.

The company also offers information management products and services to targeted commercial markets.

Geographic Markets

INPUT estimates that the majority of GTEDS' 1995 revenue was derived from the U.S. The company also derives revenue from Europe, Canada, and the Caribbean.

Employees

As of October 1996, GTEDS had approximately 4,000 employees.

Key Products and Services

GTEDS has developed, tested, installed, and currently operates more than 125 large-scale business applications worldwide.

Products

GTEDS offers various end-user billing systems and message processing solutions for the telecommunications industry, including the following key products:

- UMS is a usage management system that automates switch data collection from network elements. UMS standardizes usage data, rates it, and accumulates it in preparation for billing.

  UMS consists of four modular components to insure accurate billing of services:

  - Data Collection initiates a polling session, collecting usage data from switches and intelligent networks, eliminating errors associated with manual handling of data.

  - Data Standardization creates detailed, standardized event records for each event collected on the network, resolving data inconsistencies produced by multiple switches and network devices.

  - Rating, for customized rating schemes, assigns a charge to each event record based on a combination of company-determined usage variables.

  - Accumulation provides systematic accumulation and billing systems transfers. It stores daily and aggregate usage prior to billing, validates the request to bill a customer, extracts and summarizes that customer's usage data, and transmits it to the billing system.

- Customer Billing Services System (CBSS) is a billing system providing billing for the client's own services, as well as on behalf of other providers such as long-distance carriers and directory companies, non-telecommunications companies such as cable television companies, gas and electric companies, and other utilities.

  - CBSS' vendor billing process allows companies to produce a single, all-inclusive bill for charges due them and other product/service providers (PSP), computing a separate bill-within-a-bill for each PSP.

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- CBSS automates billing functions and allows companies to customize bill formats and pricing plans.

- The system is designed to accommodate numerous standard interfaces, and has an expandable architecture to accommodate future changes as well as data sharing.

- The Automated Work Administration System (AWAS) is a client/server, UNIX customer field service system.

  - AWAS analyzes repair requests and service orders, and automates the dispatch of work assignments to field technicians or the client's central office.

  - AWAS runs in an IBM RS/6000 environment with IBM's implementation of UNIX (AIX). A distributed environment links the RS/6000 computers to field employees using remote laptop PCs and hand-held terminals.

- GTEDS' Carrier Access Billing System (CABS) provides billing for multinational access providers, including bills for more than $4 billion annually in network access services for GTE Corporation.

  - Access functions automate billing processes from network usage collection through bill production.

  - CABS is in use at sites throughout the U.S. and Canada.

  - GTEDS also offers comprehensive access services, including installation and maintenance support, GTEDS' Access Service Bureau, and Access consulting services.

Services

GTEDS develops, installs, and maintains large, complex software systems to help track and bill for a variety of service offerings for the telecommunications industry. The company supplements these services with professional and consulting services.

- Consulting services—GTEDS provides business and strategy development consulting services related to billing projects for the telecommunications industry.

  - Consultants identify key issues, explore new ideas and various options, and develop strategies for the implementation of immediate business requirements and future business opportunities for their clients.

  - GTEDS' access consulting services provide consultants to help with defining a total access environment and developing plans for systems integration, implementation, training, and ongoing support.

- Service Bureau—GTEDS' Service Bureau offers outsourced billing processing services, providing a range of services tailored to the client's needs.

  GTEDS' Access Service Bureau offers a range of outsourcing processing services, from processing usage and order information to preparation and mailing of access bills.

- User conferences—GTEDS conducts user conferences, allowing client feedback on software solutions. Participants discuss and prioritize enhancements and identify business concerns in an open forum. GTEDS uses this feedback to help in determining the future direction of its billing solutions.

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- Training—Training programs are designed by GTEDS training specialists using modular training materials to customize programs to the client's educational requirements.

- Documentation—GTEDS provides four types of user-specific documentation:

  - User documentation provides general information about the system, including its purpose and step-by-step procedures for using it.

  - System documentation provides technical employees with information about how the system works. It may include program narratives, job flows, record layouts, and information about system interfaces.

  - Operations documentation, written for data center employees, explains how the application runs in a production environment.

  - Installation and conversion documentation details the procedures needed to install the system, including conversion of existing data, training, and support personnel.

Clients

GTEDS provides data processing, office automation, and internal telecommunications products and services to GTE Telephone Operations in the U.S., Canada, the Dominican Republic, and Venezuela.

During 1995, GTEDS completed the implementation of its customer billing services system for CANTV (Compania Anonima Nacional de Telefones de Venezuela), a GTE affiliate in Venezuela.

The company also offers information management products and expertise to targeted commercial markets worldwide.

- GTEDS has a $19 million contract with the Federal Government to develop a new Medicare transaction system.

- GTEDS provides Medicare claims processing services to Blue Cross and Blue Shield of Florida, Inc.

- The company provides Medicaid claims services to the State of Missouri.

- GTEDS provides data processing services to Citizens Utilities, which had purchased portions of GTE's telephone operating property during 1994.

- GTEDS has a $20 million processing services contract with National Electronic Information Corp., one of the largest commercial health care claims clearing-houses in the U.S.

- In August, GTEDS was awarded a three-year, $87 million contract by Portugal Telecom to supply a next-generation billing and customer care system.

  - According to the agreement, GTEDS will supply Portugal Telecom's CLIP (Clientes Primerio) services hardware platform.

  - The pilot system is expected to begin in March 1998, and the integrated system is scheduled to be fully operational across all of Portugal by the end of 1999.

GTEDS also has clients in the U.K., Canada, the Netherlands, and Denmark.

An international sampling of GTEDS' clients includes CODETEL (Compania Dominicana de Telefonos), PTT Netherlands, Puerto Rico

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Telephone Company, Tele Danmark, Mercury Communications, Bell Canada, Bell Sygma, and Stentor.

Marketing and Sales

GTEDS markets its products and services through its direct sales force.

Competition

GTEDS' key competitors include EDS, Amdocs, American Management Systems, Cincinnati Bell Information Systems Inc., and AT&T.

Parent Company

GTE Corporation
One Stamford Forum
Stamford, CT 06904
Phone: (203) 965-2000
Revenue: $19,957,000,000 (12/31/95)

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Ken Hammonds
Dropped 1/81

COMPANY HIGHLIGHT

GULF COMPUTER SCIENCES, INC.
1775 St. James Place, Suite 160
Houston, TX 77056
(713) 627-9320

W. P. Warlick, Vice President
Wholly owned subsidiary of
Gulf Oil Corporation
Total employees: 22
Total revenues, fiscal year end
12/31/77: $1,500,000*

THE COMPANY

- Gulf Computer Sciences, Inc. (GCSI) was founded by Gulf Oil Corporation in 1968 as a systems software vendor.

- The firm's 18 employees are functionally divided as follows:

-	Computer services	15
-	Marketing	5
-	Administration	2
-	Operations	0
		22

KEY PRODUCTS AND SERVICES

- Approximately 90% of GCSI revenues are generated by the sale of its software packages which currently have 330 installations. Processing services generate the remaining 10% of revenues.

- The majority of GCSI revenues - more than 75% - derive from the sale of four software packages designed to run on IBM System/360 and System/370 computers under OS: Tape Library Management System (TLMS), Partitioned Library Management System (PLMS), UCANDU, and JOB DOC. The rest of GCSI's revenues derive from other software products (15%), and batch processing services (10%) using their software products.

- TLMS, GCSI's first product, was introduced in 1968. Today it has 250 users throughout the world. It is a tape library system for IBM System/360 and System/370 computers running under OS and OS/VS and OS/MVS. The programs include a data base, optional on-line label creation, and library inquiry/update for batch reports. Features include enhanced data set protection, automatic scratch, and off-site scheduling. The perpetual license fee is $12,500. Maintenance is $1,000 per year after the first year.

* INPUT estimate

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- PLMS was introduced in 1975. It and UCANDU together have 50 users. PLMS is a security system of programs, run in batch mode, for IBM System/360 and System/370 computers under OS, OS/VS, and OS/MVS. According to the company, it provides maintenance for all partitioned data sets including load module and procedure libraries, update passwork protection at the member level, complete backup software, and the collection of extensive audit information regarding all modifications to these production libraries. The perpetual license fee is $6,500.

- UCANDU was introduced in 1973. It is a general purpose dump/copy utility software package that will handle most files types supported by OS or VS. Its perpetual license fee is $2,250.

- JOB DOC is automated job documentation program.

- Other software includes:

  - RESTART - automatic job restart
  - PDQ - (Print and Deliver Quickly) disk spool system for IBM 3800. It provides bursting and delivery instructions for each department.
  - Picking Slip System - job set up system

- All GCSI software products are available for a free 30 day trial installation.

INDUSTRY MARKETS GCSI's customers are from all industries.

GEOGRAPHIC MARKETS Processing services customers are located in the U.S. only. Software products are installed throughout the U.S. as well as in Canada, Australia, Europe, and South America.

COMPUTER HARDWARE AND SOFTWARE GCSI uses Gulf Oil Corporation's four IBM System/370 Model 168 computers for its processing and software development and testing.

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Mr Ken F. Hammonds
Marketing Manager
6/12/78

COMPANY HIGHLIGHT

copy to Hammonds
6/14

GULF COMPUTER SCIENCES, INC.
1775 St. James Place, Suite 160
Houston, TX 77056
(713) 627-9320

W.P. Warlick, Vice President
Wholly owned subsidiary of
Gulf Oil Corporation
Total employees: ~~18~~ 22
Total revenues, fiscal year
end 12/31/76: $1,000,000*
12/31/77:

Mkt 5
oper - 0
cptr soc - ~~10~~ 15
G&A 2

THE COMPANY

- Gulf Computer Sciences, Inc. (GSCI) was founded by Gulf Oil Corporation in 1968 as a systems software vendor.

- The firm's 18 employees are functionally divided as follows:

- Computer services	10
- Marketing	6
- Administration	2

KEY PRODUCTS AND SERVICES

- The majority of GCSI revenues - more than 75% - derive from the sale of ~~three~~ 4 software packages designed to run on IBM System/360 and 370 computers under OS: Tape Library Management system (TLMS), Partitioned Library Management System (PLMS), and UCANDU, a utility package. JOB IRC The rest of GCSI's revenues derive from batch processing service using ~~there~~ their three software products.

almost out of business
5-10%
Some RIE

- TLMS, GCSI's first product, was introduced in 1968. Today it has 200 users throughout the world. It is a tape library system for System/360 and 370 computers running under OS and OS/VS and OS/MVS. The programs include a data base, optional on-line label creation, and library inquiry/update for batch reports. Features include enhanced data set protection, automatic scratch, and off-site scheduling. The perpetual license fee is $12,500 plus maintenance of $1,000 per year after the first year. 250+

- PLMS was introduced in 1975. It and UCANDU together have 50 users. PLMS is a security system of programs, run in batch mode, for IBM System 360 and 370 computers under OS, OS/VS, and OS/MVS. According to the company, it provides maintenance for all partitioned data sets including load module and procedure libraries, update password protection at the member level, complete backup software and the collection of extensive audit information regarding all modifications to these production libraries. The perpetual license fee is $6,500.

*INPUT estimate

October 1977

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COMPANY HIGHLIGHT/GULF COMPUTER SCIENCES, INC.

- UCANDU was introduced in 1973. It is a general purpose dump/copy utility software package that will handle most files types supported by OS or VS. Its perpetual license fee is $2,250.

- All GCSI software products are available for a free 30 day trial installation.

JOB DOC - auto job

INDUSTRY MARKETS GCSI's customers are from all industries. ~~330~~ 350 installations

DP industries

GEOGRAPHIC MARKETS Processing services customers are located in the U.S. only. Software products are installed throughout the U.S. as well as in Canada, Australia, Europe, and South America. ~TLMS only ~2-3%)

COMPUTER HARDWARE AND SOFTWARE GCSI uses Gulf Oil Corporation 4 IBM ~~Systems 370/158 and~~ System 370/168 computers for its processing and software development and testing.

15-20%

RESTART auto job restart

PDQ - disk spool system (Print & Deliver Quickly)

IBM 3800 bursting & del instr

for ea rept

Picking Slip Sys - job set up sys

Are introducing new sft -

work in conj

total data set control

retrieval archieval & backup

October 1977

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IT2000

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

May 1995

Gupta Corporation

Chairman & CEO: Umang P. Gupta
President & COO: Sam Inman
1060 Marsh Road
Menlo Park, CA 94025
Phone: (415) 321-9500
Fax: (415) 321-5471

GUPTA™

Status:	Public
Employees:	400 (12/94)
Revenue:	$64,498,000
Fiscal Year End:	12/31/94

Key Points

- Gupta Corporation provides application development and deployment software solutions to build client/server applications.
- In April 1995, Gupta named Sam Inman president and chief operating officer in an effort to strengthen the company's management team. Umang Gupta, former president and co-founder of Gupta, is now the chairman and chief executive officer.
- During the second half of 1994, Gupta established a partnership recruitment program—Gupta Business Partners—in an effort to grow its existing group of partners that sell and support the company's products.
- Since its release in 1994, Gupta's SQLWindows 5.0 has already won four major industry awards including the PC Magazine Editor's Choice Award. In all, Gupta products have won over 30 major industry awards in the last five years.

Company Description

Gupta Corporation develops, markets and supports client/server systems software products specifically designed for PC networks, including front-end software tools, database server software and connectivity software. The company also provides

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associated maintenance and training support services.

Gupta commenced operations in 1984 as Gupta Technologies and funded its operations through 1986 entirely from software development contracts. In March 1987, the company introduced its first connectivity product—SQLNetwork.

Organization and Structure

Headquartered in Menlo Park (CA), Gupta has 24 offices worldwide. The company has offices throughout North America, as well as U.K., France, Netherlands, Austria, Belgium, Germany, Italy, Switzerland, Denmark, Australia, Hong Kong, Japan, Singapore, South Korea, Mexico and Brazil.

In parallel with its product development efforts, Gupta has established worldwide distribution through a corporate sales organization, a channel sales organization consisting of value-added resellers and distributors and telesales operations.

Value-added resellers and distributors target departmental and workgroup sales, including product, consulting and training components.

Company Strategy

Gupta's vision is to be the leading supplier of systems software for development and deployment of PC client/server applications.

Gupta generally launches new products on a worldwide basis. The company's software pricing strategy is designed to maximize unit sales for its software by targeting PCs and PC networks rather than minicomputers or mainframes.

Gupta's distribution strategy is designed to support a range of PC client/server users. The company has stratified its sales organization by size and type of sale to address the needs of the diverse customer segments. In addition, the company has formed several marketing alliances with leading companies in the client/server marketplace.

Gupta's product strategy is to distinguish itself from other software vendors by offering a comprehensive product line that includes object-oriented front-end tools, database servers and engines and connectivity software.

The company is focused on the PC client/server applications development and deployment, which gives it a competitive edge over vendors that must rewrite software originally developed for larger monolithic systems.

Gupta offers flexible multitiered technical support programs tailored to specific customer needs.

Financials

Gupta's 1994 revenue reached $64.5 million, a 15% increase over 1993 revenue of $56.1 million. A loss of $23.9 million was reported in 1994, compared to a net income of $5.6 in 1993. A five-year financial summary appears on the following page.

- Sales and marketing expenses increased 100% to $48.2 million in 1994. This increase was a result of the aggressive marketing campaign launched by Sybase to introduce new products, which included free product samples and seminars on a domestic and international level.

- General and administrative expenses increased 118% to $12.9 million in 1994. The high expenses were due to a number of reasons including the expansion of the company's European operation.

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- Research and development expenses also increased 42% due to increased staffing and associated costs required to expand the company's product line.

Gupta Corporation
Five-Year Financial Summary
($ Millions, except per share data)

	Fiscal Year				
Item	1994	1993	1992	1991	1990
Revenue	$64.5	$56.1	$32.8	$21.3	$10.9
• Percent change from previous year	15%	71%	54%	96%	74%
Income (loss) before taxes	$(23.6)	$7.5	$2.1	$0.2	$(5.0)
• Percent change from previous year	(414%)	250%	*	104%	(478%)
Net income (loss)	$(23.9)	$5.6	$1.8	$0.1	$(4.9)
• Percent change from previous year	(523%)	220%	*	101%	(457%)
Earnings (loss) per share	$(2.00)	$0.44	$0.17	$0.01	$(0.95)
• Percent change from previous year	(555%)	159%	*	101%	(459%)

* *Percent change exceeds 1,000%.*

Research and development expenses were approximately $11.2 million (17% of revenue), $7.9 million (14% of revenue) and $5.8 million (18% of revenue) in 1994, 1993 and 1992 respectively.

Interim Results

Revenue for the three months ending March 31, 1995 was $20.0 million, compared to $16.1 million for the same period in 1994. Net losses were $1.0 million, compared to net loss of $271,000 for the same period in 1994.

Revenue Analysis by Product/Service

Approximately 84% of Gupta's 1994 revenue was derived from software licensing (including software distributed as packaged products and licensing arrangements that permit software reproduction) and 16% from services (including maintenance, training and technical support).

In 1993, approximately 90% of the company's revenue came from software products and 10% from services.

A three-year summary of source of revenue appears on the following page.

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Gupta Corporation
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year					
	12/94		12/93		12/92	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Software licenses	$54.1	84%	$50.3	90%	$30.0	91%
Services	$10.4	16%	$5.8	10%	$2.8	9%
Total	$64.5	100%	$56.1	100%	$32.8	100%

Market Financials

Gupta markets its products to users of PC client/server systems worldwide. The company's products are used by various vertical industries including—aerospace, automotive, consulting, education, financial services, government, industrial, non-profit, petroleum and chemicals, pharmaceuticals, retail/wholesale/distribution, systems integration, telecommunications, transportation and utilities.

The company has an installed base of over 60,000 licenses for SQL Windows and over 500,000 licenses for SQLBase.

Geographic Markets

Approximately 48% of Gupta's 1994 revenue was derived from North America and 52% from international sources.

A three-year summary of source of revenue by geographic region follows:

Gupta Corporation
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	12/94		12/93		12/92	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
North America	$30.9	48%	$27.5	49%	$15.7	48%
International	$33.6	52%	$28.6	51%	$17.1	52%
Total	$64.5	100%	$56.1	100%	$32.8	100%

In 1994, revenue from North America grew by nearly 13% from 1993, as compared to a 75% increase in 1993 from 1992.

International revenue continues to be a significant contributor to Gupta's revenue and saw a growth of approximately 17% in 1994, as compared to 68% in 1993.

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Employees

As of December 31, 1994, Gupta had approximately 406 full-time employees, segmented as follows:

Marketing and sales	95
Technical services	49
Research and development	91
Manufacturing	12
Finance and administration	52
	406

The company currently has 380 employees.

Key Products and Services

Gupta's application development and deployment software solutions are used to build mission-critical, client/server applications.

Software Products

Gupta offers an integrated line of products in each of the three main segments of the PC network client/server systems software market—front-end tools, database servers and connectivity software.

The products are designed specifically for client/server computing on PC networks. Gupta SQL System products are summarized in the exhibit and include the following:

- Front-End Tools include:
  - *Gupta SQLWindows* is a graphical development system for programmers. It includes the company's new QuickObjects architecture. Over 60,000 copies have been licensed.
  - In May 1995, Gupta announced SQLWindows for Microsoft SQL Server™ 6.0. The integrated product offers a single-source solution to developers of large client/server applications for Windows and Windows NT.
  - In July 1994, the company introduced SQLWindows 5.0 featuring QuickObjects and a 4GL-to-C compiler. The 5.0 version is available in four editions—SQLWindows Solo, SQLWindows Starter, SQLWindows Network and SQLWindows Corporate editions.
  - *Gupta SQLWindows Solo* is a single-user version of SQLWindows and offers condensed documentation and deployment rights for single-user applications, in addition to all the standard features of SQLWindows. Over 130,000 copies have been licensed.
  - *Gupta SQLWindows Starter* edition includes object libraries and Lotus Notes integration and can be used to build networked SQL applications.
  - *Gupta SQLWindows Network* edition includes all the features of the Starter edition as well as offers unlimited connectivity deployment licenses to corporate databases.
  - *Gupta SQLWindows Corporate* edition is used to build networked SQL applications and includes APIs for enterprise and CASE integration and a compiler for large applications.
  - *Gupta Quest* is a user data access, query and reporting tool for use with SQL databases. Several hundred thousand copies have been licensed.
- Database Server Products include the following:
  - *Gupta SQLBase* is a database specifically designed to manage decentralized data stored in workgroups, branch offices, PC desktops and mobile laptops. Over 500,000 copies of SQLBase have been

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licensed. In March 1995, the company introduced the sixth generation of the database—SQLBase 6. The SQLBase 6 line of products includes the following:

- *Gupta SQLBase Server* is a workgroup server for NetWare that allows the deployment of client/server workgroup applications on Novell's NetWare server operating system.

- *Gupta SQLBase Desktop* is a client and server workgroup database that allows the deployment of workgroup applications in client-to-server, client-to-client or standalone configurations.

- *Gupta SQLBase Runtime* is a deployment tool for applications that need to embed basic database management facilities. Based on the 5.2 version of SQLBase, the Runtime can be deployed without any royalty fees.

- Connectivity Products include the following:

  - *Gupta SQLNetwork* connectivity software consists of SQLRouters, SQLGateways and SQLHosts that are designed to communicate with different types of servers. To date, several hundred thousand copies are in use.

Gupta offers several product bundles including Gupta Project Starter Kits for departmental projects, Gupta Partner Kits of value-added resellers and Gupta Enterprise Kits for large project requirements. These kits consist of bundled front-end tools, data base server products, connectivity software, support and selected training and are priced to facilitate the adoption of Gupta's software and development of applications by first-time users.

Customer Support and Services

The company's Professional Services organization offers education and consulting services through Gupta consultants and certified training and consulting partners.

Gupta supports customers directly as well as through its partnerships with third-party vendors.

- Gupta's standard licensing agreements provide a 90-day warranty period entitling the user to customer support and product updates at no charge.

- Gupta offers multi-tiered technical support programs tailored to specific customer needs.

- A Licensed Subscription Service is offered to all customers, with an additional fee for bug fixes and software maintenance releases.

- A telephone hotline service is available for all products on a pay-per-incident or annual service fee basis. Gupta also maintains an electronic bulletin board.

- Gupta's Strategic Technical Account Representative (STAR) program is available to large, enterprise-wide customers.

- Additional support coverage is provided through Gupta's worldwide network of authorized support centers, certified business partners and authorized consultants.

Clients

Gupta's products are used in at least 75 countries worldwide. A partial list of clients follows:

- *Banks*—Bankers Trust, Canadian Imperial Bank of Commerce, Chase Manhattan Bank, Chemical Bank, Citibank, Deutsche Bank and State Street Bank & Trust

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- *Consumer/Retail*—Duracell, H.J. Heinz, JC Penny, Nabisco Brands, PepsiCo, Procter & Gamble, Reader's Digest Association and Tandy

- *Energy*—Atlantic Richfield, Baltimore Gas and Electric, Consolidated Edison Company of New York, No. Carolina Power & Light, No. Illinois Gas Company, Pacific Gas and Electric, Shell Oil and Texaco

- *Financial Services*—Aetna Life and casualty, The Boston Company, Dun & Bradstreet, General Electric Capital Corp., Merrill Lynch, Shearson Lehman Brothers and Traveler's Insurance

- *Manufacturing*—Abbott Laboratories, Chrysler, Ford Motor Company, Johnson & Johnson, Mitsubishi, Owens Corning Fiberglass and Toyota Corporation

- *Technology*—A.C. Nielsen, American Telephone & Telegraph (AT&T), Boeing Computer Services, General Dynamic Data Systems Division and IBM

Marketing and Sales

Gupta sells its products and services worldwide through a range of distribution channels.

- *Corporate Sales Organization*—This organization supports large customers involved with sophisticated enterprise-wide client/server systems.

  - In addition to an internal sales force, the company serves customers through third-party vendors such as vertical software partners, hardware original equipment manufacturers (OEMs) and systems integrators (SIs).

  - Internal sales offices are located throughout North America, as well as in France, Germany, Italy, Switzerland, Austria, Australia, Hong Kong, Mexico, the Netherlands, Canada, Belgium, Denmark and the U.K.

- *Channel Sales Organization*—This organization targets medium-sized customers with departmental client/server systems.

  - Support is offered to customers through an indirect distribution channel that is made up of Novell authorized resellers, distributors, value-added resellers (VARs) as well as consultants.

  - Gupta also distributes its products in North America through major independent distributors, including Ingram Micro and Merisel.

  - Outside North America, Gupta has established a network of international distributors, including Computer 2000 AG GmbH in Europe.

- *Telesales Organization*—This organization targets first-time customers and existing customers making follow-on purchases.

Gupta is continuously involved in marketing programs including direct mail, public relations, advertising, seminars, trade shows and on-going customer communications programs.

Alliances

In May 1995, Gupta announced SQLWindows for Microsoft SQL Server 6.0, which provides professional developers of large-scale client/server applications with a single-source solution. Gupta and Microsoft will also sponsor client/server application development seminars worldwide, beginning the third quarter of 1995.

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In April 1995, Gupta entered into a major five-year agreement with Computer Associates (CA) that will allow CA to embed and market Gupta's SQL database engine in its development tools and applications. The agreement is valued at about $17 million and includes multiple contracts.

In April 1994, Gupta and KnowledgeWare signed an OEM agreement, under which KnowledgeWare will bundle single-user SQLBase engine with every copy of ObjectView.

In 1994, Gupta established Gupta Business Partners—a partnership recruitment program that has added over 200 Gupta Partners in North America, bringing the total number of partners worldwide to more than 500.

Gupta's vertical software partners develop and sell applications software for use with Gupta's products, and include Learmonth and Burchett Management Systems PLC (CASE tools), Lucas Management Systems (project management), PeopleSoft (human resources), Project Software & Development, Inc. (facilities management), Sales Technologies (sales management) and Spectrum Associates (manufacturing).

Gupta has cooperative selling arrangements with AT&T GIS (NCR), Hewlett-Packard, ICL Personal Systems Oy/Nyokia Data Systems Oy, Siemens-Nixdorf and Mitsubishi that provide joint marketing or network solutions for incorporating their products with Gupta's products. The company has agreements with IBM and Platinum Technology to sell the company's products under their own labels.

Gupta also has agreements with systems integrators, such as Andersen Consulting, that build large, custom turnkey solutions for their corporate customers using Gupta's products.

Competition

Competitors that provide products for mainframes and minicomputers include IBM, Informix, Computer Associates (ASK Group), Oracle and Sybase.

Competitors in the PC area include Microsoft and Borland.

Competitors that provide products for the PC network client/server market include Powersoft and Easel (front-end tools) and IBI Systems and Micro DecisionWare (connectivity products).

INPUT Assessment

Gupta's strengths include:

- A strong corporate presence established over the decade through the successful delivery of client/server solutions to many Fortune 500 size organizations.
- An exclusive focus on desktop and LAN platforms making Gupta's products optimized for client/server computing in areas like ease-of-use, graphical interfaces, low resource consumption and high power.
- Desktop and LAN focus is complemented with enterprise integration through technologies like SQLNetwork which integrates data on most repositories for enterprise-wide development.

Challenges for the company over the coming year include:

- Gupta increased revenues while reducing expenses in the first quarter of 1995, thus resulting in a much smaller loss than in previous quarters. Gupta is now faced with the challenge of continuing this progress and returning to profitability as soon as possible.

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- To further develop the indirect channel in the U.S. market to work cooperatively with the well established direct sales force. The challenge is to increase the revenue contribution of the indirect channel in 1995.

- Maintain technology leadership by delivering an upgraded product suite that leverages the new 32-bit interface and power of new Microsoft technologies like Windows 95, OLE2 and SQLServer 6.

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INPUT

GUPTA CORPORATION

1060 Marsh Road
Menlo Park, CA 94025
Phone: (415) 321-9500
Fax: (415) 321-5471

President & CEO:	Umang P.Gupta
Status:	Public Corporation
Stock Exchange:	NASDAQ
Total Employees:	204
Total Revenue:	$32,771,000
Fiscal Year End:	12/31/92

Key Points

- Gupta Corporation's strategy is to be the leading provider of client/server systems software for PC networks. Elements of the strategy include:
  - Offering an integrated product line for client/server computing, including front-end tools, data base server products, and connectivity software
  - A price/performance model aimed at providing software with advanced functionality and performance at prices targeted for PC networks rather than mainframes or minicomputers
  - Stratified distribution channels designed to facilitate a broad market penetration of Gupta's products, and to meet the specific requirements of a variety of users
  - A global market focus
  - A flexible, tiered support program
- In January 1993, Gupta made an initial public offering of two million shares of its common stock.
- Novell, Inc. currently owns 15.5% of Gupta's common stock. Since August 1992, Gupta and Novell have had a reseller agreement whereby Gupta's products are sold through Novell authorized resellers.

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Company Description

Gupta Corporation develops, markets, and supports client/server systems software products specifically designed for PC networks, including front-end software tools, data base server software, and connectivity software. The company also provides associated maintenance and training support services.

Gupta's multiple distribution channels include a corporate sales force that focuses on enterprisewide accounts, a worldwide network of value-added resellers and distributors that targets departmental sales, and a telesales operation for small purchases by first-time buyers and follow-on purchases by existing customers.

In January 1993, Gupta made an initial public offering of 2 million shares of its common stock, of which 1.86 million shares are being sold by Gupta and 140,000 shares by selling stockholders. Net proceeds to the company from the sale are estimated to be $18.5 million.

Company History

Gupta commenced operations in 1984 as Gupta Technologies and funded its operations through 1986 entirely from software development contracts.

In March 1987, Gupta released its first product, SQLBase Server.

In January 1988, the company introduced its first connectivity product, SQLNetwork.

Gupta expanded its line of PC network client/server systems software products with the release of its front-end tools--SQLWindows and Quest--in August 1988 and August 1991, respectively.

The company was profitable in 1987 and 1988, but incurred losses in 1989 and 1990, principally due to substantial investment in sales and marketing infrastructure, product development expenses, and lower than anticipated revenues in 1990.

In parallel with its product development efforts, Gupta established worldwide distribution through a corporate sales organization, a channel sales organization consisting of value-added resellers and distributors, and telesales operations.

Gupta regained profitability in 1991 and has been profitable in each of the last five quarters.

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Financials

Gupta's 1992 revenue reached nearly $32.8 million, a 54% increase over 1991 revenue of $21.3 million. Net income rose significantly, from $59,000 in 1991 to over $1.7 million in 1992. A five-year financial summary follows:

GUPTA CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	1992	1991	1990	1989	1988
Revenue	$32,771	$21,295	$10,853	$6,228	$3,902
· Percent change from previous year	54%	96%	74%	60%	N/A
Income (loss) before taxes	$2,143	$187	$(4,961)	$(859)	$237
· Percent change from previous year	*	104%	(478%)	(462%)	N/A
Net income (loss)	$1,762	$59	$(4,899)	$(879)	$108
· Percent change from previous year	*	101%	(457%)	(914%)	N/A
Earnings (loss) per share	$0.17	$0.01	$(0.95)	$(0.17)	$0.02
· Percent change from previous year	*	101%	(459%)	(950%)	N/A

* *Percent change exceeds 1,000%.*

Software product license revenues increased 53% during 1992 due primarily to increased market acceptance of the company's products, expansion of the company's sales and marketing efforts domestically and internationally, and introduction of new products.

- Increased sales were recorded for SQLBase, SQLWindows, and Quest, with new versions of each of these products having been introduced in the second half of 1991.
- International sales rose 63% during 1992.
- Price increases implemented in the first quarter of 1992 also contributed slightly to increased revenues.

Net research and development expenses were approximately $5.8 million (18% of revenues) in 1992, $3.9 million (18% of revenues) in 1991, and $3.7 million (34% of revenues) in 1990.

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Alliances

Gupta's vertical software partners develop and sell applications software for use with Gupta's products, and include Learmonth and Burchett Management Systems (CASE tools), Lucas Management Systems (project management), PeopleSoft (human resources), Project Software & Development (facilities management), Sales Technologies (sales management), and Spectrum Associates (manufacturing).

Gupta currently has cooperative selling arrangements with NCR, Hewlett-Packard, ICL Personal Systems Oy/Nyokia Data Systems Oy, Siemens-Nixdorf, and Mitsubishi which provide joint marketing or network solutions for incorporating their products with Gupta's products.

Gupta has agreements with systems integrators, such as Andersen Consulting, that build large, custom turnkey solutions for their corporate customers using Gupta's products.

Gupta has a cooperative selling arrangement with IBM for the AS/400 computing environment.

In August 1992, Gupta entered into a reseller agreement with Novell whereby Gupta's products are sold through Novell's authorized resellers. Novell receives quarterly sales commissions and trademark license fees from Gupta.

Employees

As of December 31, 1992, Gupta had 204 full-time employees, segmented as follows:

Sales and marketing	76
Technical service	30
Product development	60
Manufacturing	7
Finance and administration	31
	204

Competitors

Competitors that provide products for mainframes and minicomputers include IBM, Informix, Ingres (ASK Group), Oracle, and Sybase.

Competitors in the PC area include Microsoft and Borland.

Competitors that provide products for the PC network client/server market include Powersoft and Easel (front-end tools) and IBI Systems and Micro DecisionWare (connectivity products).

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Key Products and Services

Approximately 91% of Gupta's 1992 revenue was derived from software licensing (including software distributed as packaged products and licensing arrangements that permit software reproduction) and 9% from services (including maintenance, training, and technical support).

A three-year summary of source of revenue follows:

GUPTA CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMRY
($ millions)

	FISCAL YEAR					
	1992		1991		1990	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Software licenses	$30.0	91%	$19.6	92%	$10.0	92%
Services	2.8	9%	1.7	8%	0.9	8%
TOTAL	**$32.8**	**100%**	**$21.3**	**100%**	**$10.9**	**100%**

Gupta estimates that it has licensed over 133,000 copies of its software, including 37,000 copies of its front-end tools, 65,000 copies of its data base server products, and 31,000 copies of its connectivity software.

Software Products:

The Gupta SQL System is an integrated line of products in each of the three main segments of the PC network client/server systems software market--front-end tools, data base servers, and connectivity software. The products are designed specifically for client/server computing on PC networks. Gupta SQL System products are summarized in the exhibit and include the following:

- Front-End Tools include the following:

  - SQLWindows is a graphical development system for programmers. Over 21,000 copies have been licensed.

  - Quest is an easy-to-use, end-user data access, query, and reporting tool for use with SQL data bases. Over 15,000 copies have been licensed.

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GUPTA CORPORATION

GUPTA SQL SYSTEM SOFTWARE PRODUCTS

PRODUCT	DATE OF INITIAL RELEASE	SUGGESTED U.S. RETAIL PRICE	TYPICAL OPERATING SYSTEM	MINIMUM HARDWARE CONFIGURATION
Gupta SQLWindows	August 1988	$1,595-2,495	DOS/Windows, OS/2	4MB RAM/386 CPU
Gupta Quest	August 1991	$595	DOS/Windows OS/2	4MB RAM/386 CPU
Gupta SQLBase Server	March 1987	$995-9,995	DOS, OS/2, NetWare, UNIX	4-8MB RAM/386 CPU
Gupta SQLBase Engine	March 1987	$400	DOS, DOS/ Windows, OS/2	1-2MB RAM/386 CPU
Gupta SQLNetwork				
- SQLGateway	January 1988	$1,995-4,995	NetWare, OS/2	8MB RAM/386 CPU
- SQLHost	January 1988	$40,000-140,000	MVS (VTAM & CICS)	IBM or compatible mainframe
- SQLRouter	August 1990	$250	DOS/Windows, OS/2	2-4MB RAM/386 CPU

- Data Base Server Products include the following:
  - SQLBase Server consists of high-performance, multiuser, scalable data base servers designed for a variety of operating systems in the PC network environment. Over 18,000 copies have been licensed.
  - SQLBase Engine is a single-user data base engine for storing or retrieving data on a PC client, rather than the network server. Over 47,000 copies have been licensed.
- Connectivity Products include the following:
  - SQL Network connectivity software consists of SQLRouters, SQLGateways, and SQLHosts that are designed to communicate with different types of servers. Over 31,000 copies have been licensed.

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Gupta offers several product bundles including Gupta Project Starter Kits for departmental projects, Gupta Partner Kits for value-added resellers, and Gupta Enterprise Kits for large project requirements. These kits consist of bundled front-end tools, data base server products, connectivity software, support and selected training, and are priced to facilitate the adoption of Gupta's software and development of applications by first-time users.

Customer Support and Service:

Gupta's standard licensing agreements provide a 90-day warranty period entitling the user to customer support and product updates at no charge.

Gupta offers multitiered technical support programs tailored to specific customer needs.

A Licensed Subscription Service is offered to all of its customers for an additional fee for bug fixes and software maintenance releases.

A telephone hotline service is available for all products on a pay-per-incident or annual service fee basis. Gupta also maintains an electronic bulletin board.

Gupta's Strategic Technical Account Representative (STAR) program is available to large, enterprisewide customers.

Additional support coverage is provided through Gupta's worldwide network of authorized support centers, certified business partners, and authorized consultants.

Industry Markets

Gupta targets its marketing and sales efforts to worldwide users of PC network client/server systems.

These users, ranging from individual PC software applications developers to MIS departments of large corporations, typically purchase client/server systems through different channels and require different levels of support. Gupta has stratified its sales organization by size and type of sale to address the needs of these diverse customer segments as follows:

- Gupta's Corporate Sales Organization is an internal sales force that focuses primarily on customers establishing large, sophisticated, and enterprisewide client/server systems.

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- Gupta's Channel Sales Organization focuses primarily on customers with standalone or departmental client/server systems. Gupta reaches these customers through an indirect distribution channel consisting of Novell resellers, distributors, VARs, and consultants.
  - Gupta also distributes its products in North America through major independent distributors, including Ingram Micro and Merisel.
  - Outside North America, Gupta has established a network of international distributors, including Computer 2000 AG GmbH in Europe.
  - Gupta also sells its products through a worldwide network of VARs and consultants that specialize in developing customized solutions for smaller, departmental networks. Gupta has certified over 300 VARs marketing to industries such as financial services, telecommunications, publishing, transportation, and health care.
  - Sales through the Channel Sales Organization accounted for 54%, 36%, and 52% of Gupta's total revenues for 1992, 1991, and 1990, respectively.
- Gupta's Telesales Organization meets the needs of first-time customers and existing customers making follow-on purchases. Gupta is in the process of moving a portion of its U.S. telesales operation from third-party vendors to internal employees and is establishing a telesales structure in parts of Europe.

Clients

A partial list of North American end users of Gupta's software products follows:

- *Banks:* Bankers Trust, Canadian Imperial Bank of Commerce, Chase Manhattan Bank, Chemical Bank, and State Street Bank & Trust
- *Consumer/Retail:* Duracell, H.J. Heinz, JC Penney, Nabisco Brands, PepsiCo, Procter & Gamble, Reader's Digest Association, and Tandy
- *Energy:* Atlantic Richfield, Baltimore Gas and Electric, Consolidated Edison Company of New York, No. Carolina Power & Light, No. Illinois Gas Company, Pacific Gas and Electric, Shell Oil, and Texaco

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- *Financial Services:* Aetna Life and Casualty, The Boston Company, Dun & Bradstreet, General Electric Capital Corp., Merrill Lynch, Shearson Lehman Brothers, and Traveler's Insurance
- *Manufacturing:* Abbott Laboratories, Chrysler, Johnson & Johnson, and Owens Corning Fiberglass
- *Technology:* A.C. Nielsen, American Telephone & Telegraph, Boeing Computer Services, General Dynamic Data Systems Division, and IBM

Gupta also has many clients in Europe, Asia, and the Pacific Rim from a range of industries, including banking and financial services, manufacturing and energy, technology, and other.

Geographic Markets

Approximately 48% of Gupta's 1992 revenue was derived from North America, 42% from Europe, and 10% from other international sources.

A three-year geographic source of revenue summary follows:

GUPTA CORPORATION
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1992		1991		1990	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
North America	$15.7	48%	$10.8	51%	$6.7	62%
Europe	13.6	42%	7.6	36%	3.8	35%
Other international	3.5	10%	2.9	13%	0.4	3%
TOTAL	**$32.8**	**100%**	**$21.3**	**100%**	**$10.9**	**100%**

Gupta's products are used in over 58 countries worldwide.

In addition to its headquarters in Menlo Park (CA), Gupta has offices in the metropolitan areas of Chicago, Dallas, New York, Washington D.C., London, Paris, and Munich.

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